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ANNUAL REPORT

ILLINOIS FARMER'S INSTITUTE

99519

WITH REPORTS OF

COUNTY FARMER'S INSTITUTES

FOR THE YEAR 1896.

EDITED BY

CHARLES F. MILLS, Secretary.

SPRINGFIELD, ILL.
ED. F. HARTMAN, STATE PRINTER.
1896

LETTER OF TRANSMITTAL.

To His Excellency, JOHN P. ALTGELD, Governor of Illinois:

SIR:—I have the honor to transmit herewith the report of the Illinois Farmers' Institute for the year 1895.

Very respectfully,

CHARLES F. MILLS,
Secretary.

SPRINGFIELD, JULY 1, 1896.

ORGANIZATION

OF THE

Illinois Farmers Institute.

CREATED BY ACT OF THIRTY-NINTH GENERAL ASSEMBLY.

OFFICERS—1895 :

PRESIDENT,	- - -	F. M. PALMER,	- - -	CLINTON
VICE-PRESIDENT,	- - -	G. W. DEAN,	- - -	ADAMS
SECRETARY,	- - -	CHARLES F. MILLS,	- - -	SPRINGFIELD
TREASURER,	- - -	DANIEL BERRY,	- - -	CARM

BOARD OF DIRECTORS:

State Superintendent of Public Instruction, S. M. Inglis.....	Springfield
Dean of State Agricultural College, Eugene Davenport.....	Champaign
President State Board of Agriculture, J. W. Judy.....	Tallula
President State Horticultural Society, T. E. Goodrich.....	Cobden
President State Dairymen's Association, John Stewart.....	Elburna
Eighth District—D. D. Hunt.....	DeKalb
Ninth District—G. W. Curtis.....	Stockton
Tenth District—William Payne.....	Osborne
Eleventh District—U. S. Ellsworth.....	Deer Park
Twelfth District—J. M. Thompson.....	Joliet
Thirteenth District—F. M. Palmer.....	Clinton
Fourteenth District—Oliver Wilson.....	Magnolia
Fifteenth District—G. W. Dean.....	Adams
Sixteenth District—W. H. Wall.....	Staunton
Seventeenth District—Charles F. Mills.....	Springfield
Eighteenth District—W. E. Robinson.....	Greenville
Nineteenth District—W. H. Wallace.....	Humboldt
Twentieth District—Daniel Berry.....	Carmi
Twenty-first District—A. B. Ogle.....	Belleville
Twenty-second District—H. P. Burroughs.....	Elkville

COMMITTEES :

Agricultural Education—Eugene Davenport, Dean of the Agricultural College, University of Illinois; S. M. Inglis, J. W. Judy, G. W. Dean, Charles F. Mills.

Agricultural Advancement—J. W. Judy, President Illinois State Board of Agriculture; D. D. Hunt, U. S. Ellsworth, W. E. Robinson, A. B. Ogle.

Education of Farmers' Children—S. M. Inglis, State Superintendent of Public Instruction; Wm. E. Robinson, D. D. Hunt, Daniel Berry, W. H. Wall.

Dairy Husbandry—John Stewart, President State Dairymen's Association; D. D. Hunt, J. M. Thompson, Oliver Wilson, Charles F. Mills.

Horticulture—T. E. Goodrich, President State Horticultural Society; G. W. Curtis, A. B. Ogle, G. W. Dean, H. P. Burroughs.

Live Stock Breeding—J. M. Thompson, William Payne, U. S. Ellsworth, H. P. Burroughs, Charles F. Mills.

Transportation—Charles F. Mills, G. W. Dean, G. W. Curtis, J. M. Thompson, W. H. Wallace.

Finance—F. M. Palmer, W. E. Robinson, William Payne, Daniel Berry, Charles F. Mills.

OFFICERS ILLINOIS FARMERS' INSTITUTE--1895.



President F. M. Palmer, Clinton, Ill.



Vice-President G. W. Dean, Adams, Ill.



Secretary Charles F. Mills, Springfield, Ill.



Treasurer Dan'l Berry, Carmi, Ill.

ORGANIZATION

OF THE

Illinois Farmers' Institute.

CREATED BY ACT OF THIRTY-NINTH GENERAL ASSEMBLY.

OFFICERS—1896:

PRESIDENT,	- - -	F. M. PALMER,	- - -	CLINTON
VICE-PRESIDENT,	- - -	W. E. ROBINSON,	- - -	GREENVILLE
SECRETARY,	- - -	CHARLES F. MILLS,	- - -	SPRINGFIELD
TREASURER,	- - -	T. W. WILSON,	- - -	SPRINGFIELD

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Dean of State Agricultural College, Eugene Davenport.....	Champaign
President State Board of Agriculture, J. W. Judy.....	Tallula
President State Horticultural Society, T. E. Goodrich.....	Cobden
President State Dairymen's Association, George H. Gurler.....	DeKalb
Eighth District—B. F. Wyman.....	Sycamore
Ninth District—Amos F. Moore.....	Polo
Tenth District—J. H. Colledge.....	Galesburg
Eleventh District—G. A. Wilmarth.....	Seneca
Twelfth District—J. M. Thompson.....	Joliet
Thirteenth District—F. M. Palmer.....	Clinton
Fourteenth District—Oliver Wilson.....	Magnolia
Fifteenth District—G. W. Dean.....	Adams
Sixteenth District—C. G. Winn.....	Griggsville
Seventeenth District—Charles F. Mills.....	Springfield
Eighteenth District—W. E. Robinson.....	Greenville
Nineteenth District—W. H. Wallace.....	Humboldt
Twentieth District—L. N. Beal.....	Mt. Vernon
Twenty-first District—A. B. Ogle.....	Belleville
Twenty-second District.....	

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Agricultural Education—Eugene Davenport, Dean of the Agricultural College, University of Illinois; S. M. Inglis, J. W. Judy, G. W. Dean, George H. Gurler.

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Dairy Husbandry—George H. Gurler, President State Dairymen's Association; Eugene Davenport, J. M. Thompson, B. F. Wyman, J. H. Colledge.

Horticulture—T. E. Goodrich, President State Horticultural Society; Eugene Davenport, Amos F. Moore, C. G. Winn, L. N. Beal.

Live Stock Breeding—J. M. Thompson, W. H. Wallace, G. W. Dean, A. B. Ogle, Charles F. Mills.

Transportation—Charles F. Mills, L. N. Beal, Amos F. Moore, B. F. Wyman, W. H. Wallace.

Finance—F. M. Palmer, W. E. Robinson, T. M. Thompson, Amos F. Moore, Charles F. Mills.

AN ACT CREATING THE ILLINOIS FARMERS' INSTITUTE.

SECTION 1. *Be it enacted by the People of the State of Illinois, represented in the General Assembly:* That to assist and encourage useful education among the farmers, and for developing the agricultural resources of the State, that an organization under the name and style of "Illinois Farmers' Institute" is hereby created, and declared a public corporation of the State.

§ 2. It shall consist of three delegates from each county of the State, elected annually at the Farmers' Institutes for said county by the members thereof.

§ 3. The affairs of the Illinois Farmers' Institute shall be managed by a board of directors, consisting of

1. State Superintendent of Public Instruction.
2. Professor of Agriculture of the University of Illinois.
3. President of the State Board of Agriculture.
4. President of the State Horticultural Society.
5. President of the State Dairymen's Association, and one member from each congressional district of the State, to be selected by the delegates from the district present at the annual meeting of this organization: *Provided*, That the members first selected from the congressional districts of even number shall serve for one year, and the members first selected from the congressional districts of odd numbers shall serve for two years, and that the members selected thereafter to fill expired terms of office shall serve for the period of two years.

§ 4. The Board of Directors of the Illinois Farmers' Institute shall have sole care and disposal of all funds that may be appropriated by the State to sustain the organization, and shall expend the same in such manner as in their judgment will best promote the interest in useful education among the farmers and develop the agricultural resources of the State. The Illinois Farmers' Institute shall make annual report to the Governor of its transactions, which report shall include papers pertaining to its work and addresses made at the annual meeting of the organization, and a classified statement of all moneys received and of all expenditures made, and the Governor shall cause ten thousand (10,000) copies of said report to be printed, one-half for the use of the Illinois Farmers' Institute, and the remainder for the use of the State and General Assembly. It shall make no appropriation without funds in hand to meet same, and the State of Illinois shall in no event be held liable or responsible for any debt, obligation or contract made by the Illinois Farmers' Institute or its Board of Directors.

§ 5. There shall be held annually, under the direction of the Board of Directors, between October 1 and March 1 following of each year, a public meeting of the delegates from county farmers' institutes and of farmers of this State, at such time and place as may be determined by the Board of Directors, of not less than three (3) days' duration, which meeting shall be held for the purpose of developing the greater interest in the cultivation of crops, in the care and breeding of domestic animals, in dairy husbandry, in horticulture, in farm drainage, in improved highways, and general farm management, through and by means of liberal discussions of these and kindred subjects, and any citizen may take

part in these meetings, but only duly⁷ elected and accredited delegates from county farmers' institutes shall be permitted to vote in the election of the Board of Directors.

§ 6. The members of each new Board of Directors shall enter upon their duties the next Tuesday after their election, and hold their offices for one or two years, as provided in section 3, or until their successors are elected and enter upon their duties. It shall have power to fill vacancies in the board. It shall organize by the election of a President, Vice President, Secretary, Treasurer and State Superintendent of Farmers' Institutes, and such other officers or agents as may be deemed proper for organizing and conducting the work of the organization, who shall hold their offices for one (1) year, unless removed sooner by the board, and shall perform such duties as may be required of them by rules of the board. The Secretary, Treasurer and Superintendent may be other than members of the board.

§ 7. Rooms in the Capitol building shall be assigned to the officers of this organization by the proper authority, which shall then be under the control of the Board of Directors.

§ 8. The Board of Directors may make and enforce such rules and by-laws, not in conflict with the laws of this State, as will render its work most useful and efficient.

§ 9. For the purpose mentioned in the preceding sections, said Board of Directors may use such sum as it may deem proper and necessary, not exceeding the amount appropriated therefor by the General Assembly from the general fund for that purpose: *Provided, further*, that the

1. State Superintendent of Public Instruction,
2. Professor of Agriculture of the University of Illinois,
3. President of the State Board of Agriculture,
4. President of the State Horticultural Society,
5. President of the State Dairymen's Association,

And the present congressional representatives of the Illinois Farmers' Institute Association shall constitute the first Board of Directors of this organization, who shall have charge of the affairs of the same until their successors have been duly elected, and enter upon their duties as provided in this act.

ANNOUNCEMENT.

FIRST ANNUAL ILLINOIS FARMERS' INSTITUTE.

The late General Assembly, appreciating the great benefits resulting from the holding of Farmers' Institute Meetings, passed a law creating the Illinois Farmers' Institute, for the purpose of developing a greater interest, through said organization, in the better cultivation of crops, in the care and breeding of the most profitable type of domestic animals, in extending dairy husbandry, promoting horticulture, directing attention to the importance of farm drainage, stimulating the spirit of improvement in the construction of the public roads and discussing the best methods of general farm management.

The Board of Directors of the Illinois Farmers' Institute fully appreciates the magnitude of the work to be accomplished to meet the expectations of the intelligent and progressive element represented by the organization.

The members of the Board are under many obligations to the progressive farmers of the State for assurances of their earnest purpose to contribute to the success of the Institute work, and for hearty co-operation received.

In presenting the programme for the first annual meeting of the Illinois Farmers' Institute, the Directors have every reason to congratulate the public on the recognized ability of the speakers who have volunteered their services and the wide range of topics to be discussed by the gentlemen named on the following pages.

The lack of appropriation by the State for defraying any of the expenses of the State Institute, has necessitated large drafts upon the personal funds of the promoters of the series of meetings announced on the following pages. It has not been possible, for the reasons stated above, to complete the arrangements contemplated for the First Annual Convention of the Illinois Farmers' Institute.

PROGRAMME

Illinois Farmers' Institute

TUESDAY, JANUARY 7, 1896.

AFTERNOON SESSION 1:30 O'CLOCK P. M.

Senate Chamber, State House, Springfield, Ill.

HON. F. M. PALMER, Chairman.

Music.

Prayer, Rt. Rev. George F. Seymour, Bishop Diocese of Springfield.

Address of Welcome, Hon. John P. Altgeld, Governor of Illinois.

Response, Hon. F. M. Palmer, President Illinois Farmers' Institute.

Reports of the condition of the Farmers' Institute work and the agricultural outlook in the several congressional districts by the directors representing the same, viz.:

8th District, D. D. Hunt, DeKalb.

9th District, G. W. Curtis, Stockton.

10th District, William Payne, Osborn.

11th District, U. S. Ellsworth, Deer Park.

12th District, J. M. Thompson, Joliet.

13th District, F. M. Palmer, Clinton.

14th District, Oliver Wilson, Magnolia.

15th District, G. W. Dean, Adams.

16th District, W. H. Wall, Staunton.

17th District, Charles F. Mills, Springfield.

18th District, W. E. Robinson, Greenville.

19th District, W. W. Wallace, Humboldt.

20th District, Daniel Berry, Carmi.

21st District, A. B. Ogle, Bellville.

22d District, H. P. Burrows, Elkhaville.

Addresses by delegates representing County Farmers' Institutes.

Adjournment.

TUESDAY, JANUARY 7, 1896.

EVENING SESSION 7:30 O'CLOCK P. M.

Senate Chamber, State House, Springfield, Ill.

HON. WILLIAM PAYNE, Chairman.

Music.

Address: What is the State doing for the Education of the Farmers' Children of Illinois? S. M. Inglis, State Superintendent of Public Instruction.

Address: What is the State Agricultural College doing for the Illinois Farmer? Eugene Davenport, Dean State Agricultural College.

Address: What is the State Board of Agriculture doing for the Illinois Farmer? J. W. Judy, President State Board of Agriculture.

Address: What is the State Horticultural Society doing for the Illinois Farmer? T. E. Goodrich, President State Horticultural Society.

Address: What is the State Dairymens' Association doing for the Illinois Farmer, John Stewart, President State Dairymens' Association.

Address: What is the State Poultry Association doing for the Illinois Farmer? Grant M. Curtis, President Illinois State Poultry Association.

Discussion of above addresses.

Adjournment.

WEDNESDAY, JANUARY 8, 1896.

AFTERNOON SESSION—1:30 O'CLOCK.

Senate Chamber, State House, Springfield, Ill.

HON. JAMES W. JUDY, Chairman.

Music.

Prayer: W. N. McElroy, D. D. Presiding Elder, Springfield District.

Address: Outlook for the Cattle Breeders of Illinois, Hon. J. H. Pickrell, Springfield, Ill.

Address: Outlook for the Horse Breeders of Illinois, Hon. T. J. Berry, Chicago, Ill.

Address: Outlook for the Sheep Breeders of Illinois, Hon. R. M. Bell, Decatur, Ill.

Address: Outlook for the Swine Breeders of Illinois, Hon. D. P. McCracken, Paxton, Ill.

Address: Outlook for the Poultry Breeders of Illinois, Mrs. R. A. Judy, Decatur, Ill.

Address: Outlook for the Dairymen of Illinois, Hon. W. R. Hostetter, Mt. Carroll, Ill.

Discussion of the above addresses.

ADJOURNMENT.

WEDNESDAY, JANUARY 8, 1896.

EVENING SESSION 7:30 O'CLOCK P. M.

Senate Chamber, State House, Springfield, Ill.

HON. D. W. SMITH, Chairman.

Music.

Address: Agricultural Press, Hon. David Ward Wood, Chicago, Ill.

Address: Agriculture Statistics, Hon. B. W. Snow, Chicago, Ill.

Address: Rural Free Mail Delivery, Hon. John M. Stahl, Quincy, Ill.

Music.

Address: Sunshine and Shadow of Farm Life, Mrs. L. G. Chapman, Freedom, Illinois.

Address: Taxation of Farm Property, Hon. A. B. Ogle, Belleville, Ill.

Address: Highway Improvement in Illinois, Hon. Roy Stone, Department Agriculture, Washington, D. C.

Discussion of above addresses.

Adjournment.

THURSDAY, JANUARY 9, 1896.

AFTERNOON SESSION 1:30 O'CLOCK P. M.

Senate Chamber, State House, Springfield, Ill.

HON. CHARLES BOGARDUS, Chairman.

Music.

Prayer: Rev. T. D. Logan, First Presbyterian Church, Springfield, Ill.

Address: Rotation of Crops, Hon. J. M. Thompson, Joliet, Ill.

Address: Marketing Crops, Hon. S. T. K. Prine, Dwight, Ill.

Address: Fruit on the Farm, Hon. H. M. Dunlap, Savoy, Ill.

Address: Insect Pests of the Farm, Prof. S. A. Forbes, Champaign, Ill.

Address: General Drainage and its Relation to the Prevailing Drouths
Hon. Daniel Berry, Carmi, Ill.

Address: The Farmers' Home, Hon. A. G. Judd, Dixon, Ill.

Discussion of the above addresses.

Adjournment.

THURSDAY, JANUARY 9, 1896.

EVENING SESSION—7:30 O'CLOCK.

Senate Chamber, State House, Springfield, Ill.

HON. JOHN M. PIERSON, Chairman.

Music.

Address: Household Economy, Mrs. H. M. Dunlap, Savoy, Ill.

Address: The Farmer Boy, Mr. A. D. Schamel, University of Ill.

Address: Mutual Farm Insurance, Hon. J. H. Alexander, Lockport, Ill.

Address: Co-operation of Farmers, Hon. Oliver Wilson, Magnolia, Ill.

Address: How Can Railroad Companies Best Promote Agriculture?

.....
Discussion of above addresses.

Adjournment.

PROCEEDINGS
FIRST ANNUAL ILLINOIS FARMERS' INSTITUTE.

SENATE CHAMBER, STATE HOUSE,
SPRINGFIELD, Tuesday, 1:30 O'Clock P. M., January 7, 1896.

The meeting was called to order by the President, Hon. F. M. Palmer, of Clinton, who congratulated all present on the auspicious inauguration of the first annual meeting of the Illinois Farmers' Institute.

The Right Reverend George F. Seymour, Bishop, Diocese of Springfield, was introduced by President Palmer and opened the exercises with prayer, as follows:



BISHOP SEYMOUR.

A Prayer for all in Authority.

Almighty God, Whose kingdom is everlasting and power infinite, have mercy upon this whole land, and so rule the hearts of Thy servants, the President of the United States, the Governor of this State, and all others in authority, that they, knowing Whose ministers they are, may above

OFFICE OF PRAYER
COMPILED AND OFFERED BY
BISHOP SEYMOUR
OF THE
DIOCESE OF SPRINGFIELD,
AT THE
OPENING OF THE FARMERS' INSTITUTE
OF THE
STATE OF ILLINOIS.
JANUARY 7, 1896.

The Lord be with you.
And with thy spirit.
Let us pray.

THE LORD' PRAYER.

Our Father, Who art in heaven, hallowed be Thy name. Thy kingdom come, Thy will be done on earth as it is in heaven. Give us this day our daily bread and forgive us our trespasses, as we forgive those who trespass against us. And lead us not into temptation; but deliver us from evil. For Thine is the kingdom, power and glory, forever and ever. Amen.

all things seek Thy honor and glory, and that we and all the people, duly considering whose authority they bear, may faithfully and obediently honor them in Thee and for Thee, according to Thy blessed word and ordinance, through Jesus Christ our Lord, who with Thee and the Holy Ghost liveth and reigneth ever one God, world without end. Amen.

A Prayer for the Farmers' Institute, and the Associations Connected with it.

O God, Whose care is over all Thy works, and Who openest Thine hand and fillest all things living with plenteousness, bless, we beseech Thee, the Farmers' Institute of our State of Illinois. Guide its counsels and inspire the officers and members with wisdom to plan, and skill to execute for the promotion of the great interests committed to its trust. Through Jesus Christ our Lord. Amen.

A Prayer for the Farmers.

Most gracious God, through Whose knowledge the depths are broken up and the clouds drop down the dew, we beseech Thee to shelter and strengthen with the benediction of Thy grace those who till the soil, and are vouchsafed the glorious privilege to work with Thee, in giving us the increase of the fruits of the ground, which fill our barns with plenty and make our hearts rejoice and sing. Grant, O Lord, that our garners may be full and plenteous with all manner of store; that our sheep may bring forth thousands and ten thousands in our folds, and that our oxen may be strong to labor; that there may be no decay, no leading into captivity and no complaining in our homes. Grant to us these mercies, we beseech Thee, for Jesus Christ's sake, our Lord. Amen.

A Prayer for the Associations in Alliance with the Farmers' Institute.

Almighty Father, Who dost claim as Thine own all the beasts of the forest and the cattle upon a thousand hills, and all the fowls upon the mountains, and givest them to be food to the sons of men; replenish, we beseech Thee, with knowledge and discernment, meet for their vocation, all those whose business is with cattle and feathered fowls, and grant that their labors may be rewarded with Thy blessing to our satisfaction and comfort, through Jesus Christ our Lord. Amen.

A Prayer for the Continuance of Peace.

Grant, O Lord, we beseech Thee, that the course of this world may be so peaceably ordered by Thy governance that we and all the people of this land may be permitted to continue in the paths of useful industry, and to serve Thee in all Godly quietness to our lives' end, through Christ our Lord. Amen.

A Prayer for the Direction of the Farmers' Institute, Etc.

Direct, O Lord, the Farmers' Institute of this State and all connected with it, in all they say and do, with Thy most gracious favor, and further them with Thy continual help, that in all their proceedings and works now auspiciously begun they may ever continue under Thy loving care, and make their deliberations and labors redound to Thy glory and our advantage, through Christ our Lord.

The grace of our Lord Jesus Christ and the love of God and the fellowship of the Holy Ghost be with us all evermore. Amen.

NOTE:—In order to follow the programme, the address of welcome by Governor Altgeld and the response by President Palmer follow, although not delivered until later in the session.



GOVERNOR JOHN P. ALTGELD

The President: Gentlemen and ladies, I have the pleasure of introducing to you Governor Altgeld. (Applause.)

ADDRESS OF WELCOME.

His Excellency, John P. Altgeld, Governor of the State: Mr. President, ladies and gentlemen, I regret that I am so hoarse that it will be impossible for me to address you at any length. I am very glad to meet you. I feel more than an ordinary interest in the efforts which the farmers of this State are making to, as we say sometimes, "pool their issues;" efforts to stand together and look after their common interests

This is the greatest agricultural State in the world. There is not another government or state in the world that has an area nearly four hundred miles long with an average of about two hundred miles in width, the finest land lying out of doors. We have the richest soil on the average to be found anywhere in any country. Our people in this State, occupying the agricultural part of it, are of the most active, driving, intelligent citizens that we have. The agricultural interests of this State should be a power. Their influence should be powerful in shaping the history of this State, in shaping its legislation. It should be powerful in directing all of the affairs that closely and directly affect our State. But I am obliged to say to you that it is not.

The farming interests of this country have not yet advanced along the line that the other great interests are advancing. This is an age of concentration, visible to some extent in Europe, and visible to an amazing extent in this country; concentration, wiping out little affairs, little railroads and shops; consolidation, forming great corporations, large shops, great trunk lines, and so forth. But every time consolidation takes place there is increased power—increased power. No individual can compete with consolidated forces. The power is too great. He works at too great disadvantage. Now in this country that force has operated for more than a quarter of a century, until it has wiped out little railroads and little shops; wiped out competition in most lines of activity; visible in our big stores, visible everywhere. And every time these consolidations proceed a step further they wield more influence. Fewer men have to be consulted. Their influence is more potent in legislation; more potent in selecting public officials; more potent in seeking a construction of the laws, which is more important often than the making of them. And one thing noticeable throughout all this consolidation is that only those interests which can take care of themselves, only those interests which are capable of defending themselves and holding their own survive, and the others go to the ground. It does not matter what you may think about it; does not matter how much we condemn it; does not matter how much we believe that this ought to be stopped. No power has yet been found in this country to stop it, and it is going to-day with a greater momentum than ever before in the history of this country. And everywhere, I repeat, it is noticeable that those interests which are not in a position to take care of themselves—they suffer; they are shoved off into the background.

There was a time in the history of the world when agriculturists, the owners of the land, were princes of the country. They ruled the land. They gave it their laws. They gave to the laws interpretation, and saw to the execution of the laws. That day, gentlemen, has gone. It is not the case to-day at all. In all countries and in our country, in all times and in our time, the people that work the land constitute the people that the government has to rely on. They possess to a greater degree than any other element in the community the spirit of patriotism; readiness to stand by the flag and to die for it; and you find there also a readiness to bear their share of public burdens in times of peace. In times of war our best armies come from the country; in times of peace the government relies largely upon the men who till the soil and those of her people who toil more or less with their hands. And yet to-day

those very classes are shoved into the rear. Other interests are taking precedence. Other interests shape legislation and shape the destiny of the country.

I will cite but one example, so far as relates to State legislation. Your farm can be found by the assessor. If you have horses, the assessor generally can see them. Nearly everything the farmer has the tax-man can see, and it gets upon the tax-books. The farmer generally does not care much; so long as he thinks other people are assessed about as he is. But when you get into our large cities you find many men, hundreds of men, any individual of whom could buy an entire township—buy two or three townships—and who pay very little or no tax at all. They have their wealth in notes, bonds and stocks, and have it arranged so they do not make any return to the assessor, and if the assessor is a little inquisitive, a good friend goes and sees the assessor, and that is the end of it. We have to-day in this State one of the most unjust, iniquitous systems of taxation that ever burdened any state in America. (Applause.) It has been acknowledged to be so for fifteen years.

During the regime here of my distinguished predecessor, Governor Oglesby, he went so far as to appoint a commission to devise some method of revising this law, so as to give the State a more just system of taxation. The commission spent a great deal of time and made a very able report, but that was the end of it.

At every session of the legislature, for many years, honest efforts have been made by some of the members to revise this system, but nothing ever comes of it. Why? Because whenever a movement to revise gets far enough along so that there is a possibility of its passing, you find some morning some distinguished men have come down from Chicago; wise men, respectable men, honest men; they have come down to look after this tax question. And they go before committees, make speeches and lay out plans of their own, and somehow or other, when the speech-making is done, talking done—a little more devotion to the constitution, a little more melting up of patriotism, and that is the end of it. I have noticed three sessions of the legislature, since I have been here, and I have noticed that was the result every time.

Why was this possible? Because those men that came here from the great cities came to represent interests that were consolidated. There were men in the rear often, controlling such vast interests that they deemed it worth their while to employ able men to come down to Springfield to see that this tax law is not disturbed. You take concerns in Chicago that to-day are escaping taxes anywhere from two hundred and fifty to four hundred thousand dollars every year, they can afford it. They do not want a revision of the tax system. The existing law is good enough for them.

But when it comes to the farming interests, they are scattered. Every farmer will feel that this is wrong and should be stopped; but let the farmers in one township get together, what of it? Send a man to Springfield to take some money; do not know who to get. They are scattered all over the State. The interests on the other hand are such that they can collect in a room in an hour.

My idea is that these concentrations have to be met by concentrations. Not that I would advise that system of government, if I were creating a government; but I am not, neither are you. These great forces go along and gain the right to adjust themselves from time to time, that no one shall be crushed out by the superior brute force of the rest. Therefore I repeat, the farmers must meet this concentration by organization. Standing alone as individuals in the presence of these great forces, you will simply be crowded off the board; that's all.

And when you look to the national government, you will find the same influences at work. After years of effort, Congress some years ago passed, you know, what they called the inter-state commerce law; created a commission whose purpose was to regulate freight rates, to protect the shippers and protect the producers against exorbitant charges.

That was the purpose of the law. It took years of effort to get it on the statute book. What followed? Is it being enforced? Not at all. It is a dead letter. Why? Because it did not suit the corporations. The corporations carried it into the federal courts. What of that? Why, when they got it there, first one Federal Judge would pull a tooth out of the law, and then another Federal Judge would pull out another, until finally they had made every clause in that law that furnished any protection at all to shippers and producers—they had made that clause a dead letter—an absolute dead letter; might as well not be on the statute book at all. Having killed the law for the purpose for which Congress had passed it, what did they do then? They then turned around and made that law a club to pound the backs of men that work the railroads, the dinner-pail men, the men that built the roads and operate the trains. These same judges found in the law something Congress had never dreamed of, and made of it a club to pound people Congress had never thought of.

What have the farmers got to do with that? How could they have helped it? You ask me, were those judges corrupt that rendered those decisions? I do not mean to say that at all. But you have noticed, men are on the bench just what they are off the bench. Putting a new suit of clothes on a man does not make him over. Take a man any place who has been drawing a salary from them, moving in the social circles in which their influence dominates, he becomes saturated in time with their opinions. Taking him out of corporation employment and putting him on the bench does not make him over. He has the same interests afterwards he did before. The only difference is, he gets his salary from the government, instead of the corporations as he did before. Perfectly honest before. He was against all this class of legislation intended for the protection of the shipper, as a corporation lawyer, and he naturally continues to be against it.

Who was influenced about it? Who appoints those judges? Government appoints them; the President appoints them. How did he come to select those men? He selected them because there were powerful influences pressing for their appointment—powerful influences. I know the head of one very great corporation in this State, who went to the President some time ago to get a particular man appointed on the Supreme Bench of the United States. These great concentrated interests look after their affairs. They watch legislation. They watch the courts. They watch everything that can affect them financially.

Now, gentlemen, some of you are old men, but you never heard of a body of farmers creeping up the front or rear stairs of the White House, asking the President to appoint a particular man to a position on the federal bench. You never did. You were pursuing your work, while the other people were looking after their interests. The consequence is, they get their friends into positions of power. They do not pay them after they are in position; do not go and corrupt those men; do not need to.

Now unless the farming and producing classes in this country can get into a position where they can make their influence felt, you must expect legislation to be against your interests; you must expect the construction of the laws to be against your interests; you must expect the current will be running against you. There is no escape from it. It is natural—natural. Consequently, I repeat that in my judgment the very safety and perpetuity of our institutions depend on these organizations; depend on the producing and toiling classes being able to make their influence felt; not for the purpose of crushing corporations; we could not get along six hours without these corporations; our very live depends on them; we could not permit the railroads of this State to stop operations for two hours without suffering; that is not the idea; not the idea to deal unjustly with these forces, but the idea is simply to get yourselves in a position where you can take care of your own interests; where, when you meet these mighty interests, one will sort of check and grate upon but cannot cripple the other. This is the idea, the very idea of government. So that all the conflicting interests of the State shall be

firmly and ably represented, and when they get to that focal point, where one rubs powerfully up against another, there is a check—a sort of compromise—where all can live.

I have felt very deeply on this question for years. To my mind, if the forces which have been at work for a number of years go on producing the results they have produced for the last fifteen—concentrating powers where patriotism is not skin-deep and crushing the force of the people, where patriotism grows, then our institutions cannot endure long.

Now, gentlemen, it will depend upon yourselves. It will depend upon yourselves. I notice that in the account of a certain traveler, he was Republican in Republican countries and a Democrat in Democratic countries, but he was always a free man. The great concentrated interests are Republican when it suits, and Democrat when it suits, but always looking after their own interests. Now notice that farmers are a quarter of a century behind. Farmers are still good old fashioned Democrats or good old fashioned Republicans, and it never occurs to them that there are great interests here, coming right home, that must be considered from a different standpoint than a purely political one. You will have to treat political questions according to your predilection, from the standpoint of a Democrat or a Republican, whichever way the natural bent of your mind takes you, but outside of that you will have to learn to do just as these others do, look out for the farmer first.

Now, gentlemen, I find I have talked longer than I ought to have done. I thank you very much for listening to me as faithfully as you have. I can only plead the deep interest I feel in this subject as an excuse for keeping you as I have. And I also thank you for the honor of inviting me up here. (Great applause.)

Vice President Hon. G. W. Dean called to the chair.

G. W. Dean, Vice President: Ladies and gentlemen, your President, Hon. F. M. Palmer, will now respond to the welcoming address of the Governor.

Governor Altgeld and Citizens of Springfield:



F. M. PALMER.

We read in your looks and in your behavior the welcome we receive at your hands, and in behalf of the farmers and Farmers' Institutes of this State and their delegates here today I thank you.

You also are one of us. When a boy in Ohio, tilling the soil, you learned the lesson from the farmer, the lesson that only he who sows can reap, and you learned it well. You plowed your fields with a straight furrow and you sowed a good grain. The harvest has been abundant. The grain so far thrashed has had no chaff and that still in the stack seems even better. The farmers of this State look to you as their friend and ally, and I, for one, know that they do not look in vain.

We come with no common or mean motive, but to consult together for the best interests of the great basal industry, that of providing food for millions. To-day marks an epoch in the agriculture of Illinois. This is the beginning of an organization the like of which does not exist in any State of the Union. A feature it

has in common with that of Wisconsin, but in that State the institute work is under the control of the Board of Regents of their State University. In our glorious State the Illinois farmer controls the destiny of his own institute. Proud should he be of the confidence the representatives of the whole people have thus expressed in him, and he will not fail them. The more favored farmer will take his less fortunate brother by the hand and guide him to better methods, more intelligent work, and the true economy of life.

It is often repeated that agriculture is the foundation of all the other industries. From the farm comes the food to feed the crowded cities. From the farm comes the cotton and the wool to clothe them. From the farm comes the men who lead as statesmen, financiers, philanthropists and teachers, and whenever the Nation is called to protect its integrity, or defend its honor, from country homes have come its sturdiest warriors and purest patriotism. The elevation of the base, lifts the whole fabric of society. This is the mission of the Farmers' Institute. Shall a man be found so narrow in vision as to insist that legislation aiding in this great work is "special legislation." But opportunity brings responsibility. Many farmers complain of conditions that are unjust and unfair, without availing themselves of their opportunities. The world moves and we must serve notice upon ourselves that we must keep up with the procession. Muscles without brains on a farm is as a ship at sea without compass. The era of haphazard farming is passing. We owe it to ourselves that an advance shall be made all along the line. The success of advanced agriculture should encourage the whole body of farmers until success and prosperity is heralded everywhere. But a bountiful harvest is not the best crop of the farm, that lies in our boys and girls. They are the State to-morrow. Healthy, industrious and educated, the empire agricultural State of the Union will hold her place in the van of progress. Our State, great in her industries, great in her railroads, great in her agricultural resources, great in every thing, even republican majorities, must be great in the quality of her boys and girls.

The great wealth of this country, consists not in its gold in treasury vaults at Washington, not in great factories with massive machinery, not in great cities with marble palaces and paved streets, nor yet in rural homes and fertile fields, but in an intelligent citizenship. Export all our gold, destroy our factories, burn our cities and let our fields be far less productive, and let there remain an intelligent citizenship and they will replenish a depleted treasury, build better factories, grander cities, and more comfortable homes, but let our people become ignorant and degraded and everything is lost and forever. I have in a feeble way called your attention to the work of our institute which directly benefits the State. I want to say to you, the representatives of the farmers of Illinois, that the Illinois Farmers' Institute intends to send a ray of light into the home of every farmer of this State, and to the limit of its resources will make life better worth living. It will bring together the best of nature's noblemen. They will learn to love, respect and honor one another. Their lives will be broadened. Selfishness will be lost in generosity and good will, happiness will bring thrift, purity and inspiration, then will a golden age of knowledge, of virtue, of plenty and of happiness dawn upon us. May we all help in its glorious coming.

President Palmer in the chair.

The President: The first order of business is the report of the condition of the Farmers' Institute work and the agricultural outlook in the several congressional districts by the directors representing the same. In case of the absence of any of the directors, the Secretary will make report.

EIGHTH CONGRESSIONAL DISTRICT—D. D. HUNT, OF DeKALB COUNTY.



D. D. HUNT.

an early day Institutes would organize in the counties in my district, and in each of the counties they will endeavor to hold meetings. We are going to push this work and it will eventually grow into importance in the State of Illinois. Everything has now been done to organize the State Institute, and the County Institutes have thus far gone on voluntarily. If several counties which are already organized could have sent in full delegations we should have had this hall filled to-day. But it is a difficult matter for any of them to attend. When you come to the representatives of the counties in my district, I am ready to talk about my county.

The President: We will now hear from the Ninth district, which I see represented by Mr. Judd, of Lee county.

Mr. President: I am not fully prepared to report upon the general condition of the Institute work of my district as to organization, and I will request the Secretary to advise the convention of the reports filed by the County Institutes in my district.

The Secretary: Mr. President, the Eighth district is composed of the counties of DeKalb, DuPage, Grundy, Kendall and McHenry. The preliminary steps have been taken for the organization of a County Institute in DuPage county, and meeting will be held in the near future. The Institute in DeKalb county was organized in 1885, and meetings have been held annually since that time. The Grundy County Institute was organized in 1896 and is doing good work. Hon. John Stewart, of Kane county, is present, and having made an effort to complete an organization for said county, can doubtless make an encouraging report.

Mr. Hunt: In view of the bad weather the past fall, Mr. President, I think we have succeeded very well. I have worked in nearly all our counties, and have had assurance that at

A. G. Judd, of Lee county: Mr. President, as I was not expected to take this part at all, I am not informed as to the number of counties organized in my district. The director of my district, Mr. Curtis, is not present.



G. W. CURTIS.

The President: The Secretary will report for the Ninth district.

The Secretary: Mr. President, the absence of Mr. Curtis from this meeting is a source of great regret to all who are familiar with the excellent service rendered the Farmers' Institute work of the State by the gentleman who so creditably represents the Ninth district. Mr. Curtis had fully intended to be present at this meeting, but is unavoidably detained. The counties composing the Ninth district are Boone, Carroll, JoDaviess, Lee, Ogle, Stephenson and Winnebago, in each of which is a live "up to date" county Farmers' Institute.

Mr. Judd: Mr. President, the Secretary, I think, then, has expressed the whole thing—that they are organized. I know Lee and Ogle are in first-class working order.

TENTH DISTRICT.

Mr. President: Hon. William Payne, the director of the Tenth district, is unavoidably detained at home, but has sent a letter, which the Secretary will read.

The Secretary: The following counties are in the Tenth district, viz.: Henry, Knox, Mercer, Rock Island, Stark, and Whiteside, in each of which live County Institute organizations have been doing good work for several years. Mr. Payne was one of the most active and able champions, in the last General Assembly, of the bill creating the Illinois Farmers' Institute, and it would have given him much pleasure to have been present at this meeting. He writes as follows:

"OSBORN, ILL., January 6, 1896.—Charles F. Mills, Secretary Illinois Farmers Institute, Springfield, Ill.—Dear Sir:—I have the honor to make the following report of the Farmers' Institute work and the agricultural outlook in the counties in the Tenth district. In the counties of Knox, Henry, Mercer and Rock Island Farmers Institute meetings have been held for a number of years, and generally two and sometimes three



WM. PAYNE.

meetings are held each year. The meetings in each of said counties have generally been well attended, and excellent results have followed in encouraging the farmers to adopt the best methods of farming and doing business. Institutes have been organized in the counties of Stark and Whiteside since the passage of the law creating the Illinois Farmers' Institute. Meetings have been held in each of said counties, and the benefits attending the same exceeded the most sanguine expectations of the promoters. Institute meetings will be held in each of said counties during the present month.

"I suppose that each County Institute will send delegates to the State Institute meeting, and that you will be favored with detailed reports from each.

"In regard to the agricultural outlook in the six counties in this district, will say that we claim this section to be the most fertile part of Illinois, and as the farmers are educated, progressive and self-reliant, the outlook at this writing is very good."



U. S. ELLSWORTH.

within the Twelfth Congressional district duly organized, with Farmers Institutes in working order in each, viz.: Iroquois, Kankakee, Vermillion and Will. Institutes will be held in each county in this District during the present winter.

The Institutes in the Twelfth district were organized and officered as follows, and have or will hold meetings as noted:

Iroquois—Organized November, 1887. Institutes held February 25, 1890; February 27-28, 1892; February 22-23, 1893; February 21-22, 1894, and February 22-23, 1895. Officers: President, D. Brumback, Danforth; Vice-President, C. E. Foster, Watseka; Secretary, M. Garrison, Watseka; Treasurer, J. W. Dixon, Ambia, Ind.

Kankakee—Organized 1891. Institutes held 1891, 1892, 1893 Kankakee, 1894 Momence. Officers: President, T. C. Schokey, Union Hill; Vice-President, Wm. Cooper; Secretary, Lee Small; Treasurer, A. S. Byrnes, all of Kankakee.

Vermillion—Organized September 21, 1895. Officers: President, J. H. Oakwood, Danville; Vice-President, Harvey Bowen, Hoopeston; Secretary, L. H. Griffith, Danville; Treasurer, Willey Fowler, Danville.

Mr. President: In the absence of Mr. Ellsworth, the director of the Eleventh district, the Secretary will make report for the district.

The Secretary: The counties of Bureau, LaSalle, Livingston and Woodford compose the Eleventh district. The reports from the officers of the LaSalle and Woodford County Institute give every assurance of the good work resulting from the meetings held in said counties. Hon. U. S. Ellsworth, the director for the district, the president of the LaSalle County Institute, gives an encouraging report of the prospects for the early organization of institutes in the counties of Bureau and Livingston.

The President: The next District is the Twelfth, and we will now listen to the report of Major Thompson, the director.

Mr. J. M. Thompson: Mr. President, ladies and gentlemen of the Institute: It affords me pleasure to be able to report all the counties

Will—Organized February 9, 1888. Institutes held February 13-14, 1890; February 27-28 and October 23-24, 1891; February 18-19-20, 1892; February 16-17-18, 1893; February 8-9-10, 1894, and February 7-8-9, 1895. Officers: President, A. Allen Francis, New Lenox; Vice-President, James Patterson, Hoddarm; Secretary-Treasurer, Healy Alexander, Romeoville.

The agricultural outlook in the Twelfth district is good all over the four counties comprising the district. Vermillion and Iroquois counties raise more wheat than Kankakee and Will, the latter being better corn than wheat land. The farming interest in Iroquois county has been very much improved in the last three years by deepening their waterways with steam dredges to carry off more effectually the surface water. Into these canals have been run the tile from the draining districts. The county is quite generally tilled, so that good crops are assured in almost any season, wet or dry. These improvements have cost heavily, but as a result land has doubled in value. It is too early in the season to report the prospects of hay, oats and corn in Kankakee and Will, but they seldom have failures, and look hopefully forward to the future.

The President: The next District on the roll is that represented by your President, the Thirteenth, composed of the counties of Champaign, DeWitt, Douglas, Ford, McLean and Piatt. And I have to say, Mr. Vice-President, (turning towards Mr. G. W. Dean, seated beside him), that every county in the Thirteenth District has an organized Institute. The counties of Ford, DeWitt, Piatt and Champaign have had Institutes organized for years. Since the law under which we are now acting was passed, I have assisted in the organization of McLean and Douglas counties. McLean county held an Institute on the nineteenth of December last, and while the weather was unfavorable, the Institute then held was very interesting. Douglas county is to hold an Institute in the near future. The District represented by your President, I am glad to say, is one of the best in the State, and we think better than the one represented by my friend here by my side (Mr. Dean). We have our corn-cribs full, our cattle and hogs are fat, and the only trouble is, we don't get price enough. The only crop we failed on was our hay crop, this past season. I believe that is all I can say just now for my District.

The President: The next District in order is the Fourteenth, represented by Mr. Wilson, as Director. The Secretary will report for the District in the absence of Mr. Wilson.

The Secretary: The Fourteenth District is composed of the counties of Fulton, Marshall, Mason, Peoria, Putnam and Tazewell. Institutes have been organized in the counties of Fulton, Marshall, Mason, Putnam and Tazewell. An effort is being made to form an Institute in Peoria county which will complete the organizations for the Fourteenth District.

The next to be heard from is the Fifteenth District, represented by our Vice-President, Mr. Dean.

G. W. Dean, of Adams county: Mr. President, I am here to represent the Fifteenth Congressional District, and I want to say that the Fifteenth is more than an average of the Congressional Districts of the State of Illinois, notwithstanding the remark made by our worthy President just now, I repeat, my District is more than an average of the State of Illinois.

The average amount of corn raised to the acre in the whole State is said to be thirty-seven and four-tenths bushels, while in my Congressional District the average is up to forty-four bushels to the acre. So you see while some counties and even Districts will be found lacking and fail to be self-sustaining, I make out my District to be a self-sustaining one. Evidently the President has not read our report, which clearly gives the agricultural outlook of our Congressional District to be self-sustaining.

But, sir, what are we doing? Are we a poor set of fellows in my District, unable to take care of ourselves, uneducated and of no use to our day and generation in the State of Illinois? If so, you ought to know it.



G. W. DEAN.

About twelve years ago Secretary Mills wrote over to me, asking if I would organize Farmers' Institutes in Adams county. There was a chance then, he said, to do some good, and asked if I would undertake it. I said, with his assistance, I would. So twelve years ago we began opening Farmers' Institutes, and from that time up to to-day there has not been but one year when we did not hold two Institutes in each year. And I want to say further, that the State of Illinois did not pay a cent to promote our Institutes, but we paid for our own. This is the gentleman that did the collecting. Some gave a quarter and some a nickel and so forth. You all understand this. It became a work of months to provide the means, until two of us put our heads together and one said I will pay half if you will pay the other half, which was done, and then the collections came at leisure. And as for me, they have concluded to use me again. Our friend Mr. Black yonder is our President, and there was never a better one on the face of the earth.

Now the city of Quincy is a bigger place than this is, and we find we can't run a Farmers' Institute in Quincy. An Institute has no interest there. The farms around the city belong to the city lawyers, and the result is, we can't hold any successful Institutes, for we can't get the attendance in Quincy. So in order to get the attendance we want, we have to take our Institute to a number of fine villages we have in our county, numbering some of them up to as high as from twelve hundred to two thousand inhabitants. And we take it from one village to another, until we reach all the farmers. And we claim we have as good a system as can be introduced, and we have had it running for twelve years.

Our friend Black is always on hand. And at one village of about three hundred inhabitants and eight miles off the railroad, where we took the Institute, we were honored by the best welcoming address that I ever head in all my life. And besides, we are always welcomed by a number of ladies at those places. So you see we are in pretty good shape in our county. I am very glad to see some ladies here. But we have never held an Institute but that half of them were ladies. Brother Dennis, isn't that true?

C. D. Dennis, of Hancock county; They are the biggest half.

Mr. Dean: Yes, sir. So you see the result is we are working matters very successfully in our district.

The fact is, we farmers, before this Institute business began, didn't know very much. We worked right along, fourteen hours a day all through the week, and thought we were doing pretty well if we only stopped to get our Sunday school lesson; but twelve years ago we did not know what we do now. Isn't that so, Mr. Black? [He nods and says yes.] We have learned in those Institutes to strike while the iron is hot.

There was a blacksmith once who stuttered pretty badly; he had a son to help him, and one day when he had a pretty important piece of work to do he told his boy to be ready to strike, "but," said he, "don't strike

until I tell you, for the bar must be tempered just so." The iron was put in the fire, got to a proper heat, and he pulled it out, ready to begin. "N-n-n-now st-st-strike," stuttered the blacksmith. "Where shall I strike?" said the boy. "Nowhere—its cold now." [Amusement.]

Now in Adams county we don't wait for it to get cold, but we strike while the thing is hot. So much for my county, and I now pass to Hancock.

Mr. C. N. Dennis is the presiding officer in that county. He is a man the State Board of Agriculture has had use for in charge of a quite important department at the State Fair, and he is now president of the Institute in Hancock county. Being a director, I made it a point to attend every Institute held in my district, and so of course have attended the Institutes in Hancock county, and may say that I have found all the meetings there very interesting. The ladies attend there, also, as they do in my county, and they have their Ladies' Auxiliary.

The fact is, Mr. President, we farmers can't get along at all without the women. We are not the lords of creation by any means—at least not all by ourselves. For my own part, I couldn't begin to run my farm without the help of my wife, and we farmers that are exemplary husbands always consult our wives in all important matters. Of course we can't always agree, and of course, also, we can't allow our wives to mark out our course for us entirely. But we make our suggestions, and if they do not meet with approval, why, we just make a little modification by way of compromise, and so come out sailing. [Applause.]

I went to college once—I didn't stay very long—but I am reminded how some of the college boys who afterwards, I believe, turned out to be teachers, preachers and lawyers, used to hire rigs and drive out into the neighborhood where I was raised in Ohio, to show off before us backwoods folks how smart they were. And one night some of them drove up to what in old times some used to call an inn, but we plain country folks usually styled a tavern, and hollered. A lad came out and asked what was wanted, and the smart fellow of the party then let himself out somewhat in this way: "Boy, extricate the quadruped from the vehicle. Stabulate him. Effectuate to him a sufficient quantity of nutritious aliment, and when Aurora dawns reproduce him, and you shall be remunerated for your generous hospitality." The boy stood in blank astonishment; then scratching his head he got an idea and dashed back into the house, yelling: "Dad, dad, come down here right off. Here is a Dutchman wants to see you." [Amusement.]

That is the way they used to make game of the rustic ignorance of us farmers. But that was before the day of these Farmers' Institutes. These Farmers' Institutes, let me tell you, are fast lifting us out of that state of things, and now when these fine college-bred fellows come out to see us they find that we are up to them and ready to understand and appreciate what they have to say; and now they don't come out any longer just to show their smartness, but to teach us something we want to know. For instance, isn't Professor Forbes to be here?

The Secretary: Yes, sir.

Mr. Dean: Well, down at Hancock Institute, Mr. President, I had the good fortune to learn something I never expected to be able to find out. There was a doctor Ross there at one meeting, who told us all about the chinch bug, and if you have been annoyed as much as I have been you would find that a very interesting subject, too. It was not the history of the chinch bug we cared so much to know, but we wanted to find out how to get rid of him. The doctor said: "Go and make a level space of about a foot in width all around your field of corn, or wheat or oats, and then with an oil can sprinkle that space all over well with carbolic acid, using about a gallon or a little better to the half mile, and that," the doctor said, "would be sure to check the chinch bug, for he would never be able to cross that carbolic belt." Now that very piece of information, if reliable—and the doctor stakes upon it his veracity—

duly acted upon, will be worth a million dollars to my congressional district. So you see, by the help of these Institutes, we are advancing.

If I stand here too long, Mr. President, call me down.

There are seven counties in my district, and the next one I shall mention is McDonough. And let me tell you, my friends about this county, that while the attendance there has not been very large, yet for a new organization it was quite satisfactory, and made up of a sort of folks who seemed to realize the fact,

"It is not wealth, nor rank nor state,
But *git up and git* that makes men great."

And I tell you, they are going to succeed in McDonough county. They have had an excellent exhibit down there of corn and fruit, and let me tell you that exhibit was not made just to give one farmer a chance to crow over another, but to bring together all the choicest kinds, and so find out which seems to be the best, and also to make improvements by combining.

And here let me mention a piece of my own experience. Some fifteen years ago I saw out here at Mechanicsburg, in this county, the very best corn I had ever seen in my life before; and I took a bushel of that corn home with me, planted it and got what I regarded as the best corn in Illinois. You may think me a fool, but I still keep some of that corn. And I have also got some very good hybrid crosses on it, for wherever I attend an exhibition and find a more than usually good kind of corn I bring that home, too, and mix it with the other. And, Mr. President, I have lived to learn at last in Hancock county a fact I never thought before could possibly exist, that a field of corn could actually be made to produce a hundred and twenty-five bushels to the acre. That has been done in Hancock county, and the field belongs to the President of the Institute there, and that field actually did produce one hundred and twenty-five bushels of sixty-five-pound corn this year. To be sure that field for the past twenty-five years before had been in blue grass, and the seed last spring was sown with a drill; and parties told me that when the crop came up it looked as even all over as a field of wheat and never showed a single row, but seemed just like one vast solid sea of grain.

The next county I shall name is Schuyler, which has an excellent Institute and well arranged and managed, for there was not a man begged to be excused when called on, and not a man when asked to make a remark but did it and did it well. Let me say here it is a good thing now and then to let the young men lead. In fact, we old folks can't lead always, but must look to them to take hold in our place and carry it on.

In Brown county the organization is under the conduct of C. M. Dunlap, and there it will not be long before an Institute is started.

Warren county is in charge of J. F. Miller, who writes to me about things there, and he is a man that has got "get up" about him, and there will soon be an Institute held there, too.

The only entire failure, so far as I know, that I have to mention is with respect to the county of Henderson. Although I have written twice to that county, I have not been able to get a reply, and so I have nothing more to say about Henderson.

That ends my report.

Now, as to the outlook in my District. As I have already stated, the fertile soil in my District produces more than the average crop of corn in this State. I will now tell you about the way I make my estimates. Every farmer ought to have some way of making an estimate on his crop while still in the field. Suppose I am feeding hogs or cattle, and have got but forty acres in corn; how am I to know whether or not I shall have to buy? How shall I proceed to get a good estimate on my crop? I will tell you. Take from five to seven rows in any average part of your field of corn; count the number of hills in these rows and then the number of ears to the hill, and having found the average amount of corn in a row, you can calculate very closely the number of bushels in the whole field. In this way you will be able to look ahead

and make whatever arrangement you may require accordingly. Without that sort of look ahead, even in a rich district, a farm may prove not self-sustaining. But those fellows that practice are thereby always able to keep within their means; and if I find this year I cannot get my wife a new bonnet, I find it out in time to let her take the old one to the milliner to be fixed over.

Now, how am I to find out whether or not my farm is self-sustaining? After I have made an estimate on my field, as I have just described, I go to the Agricultural Bureau at Washington, and there find that on the average it costs about nine dollars and ninety cents to every single acre to raise and market a crop of corn. At the same time they tell us the average crop in this State is thirty-seven and four-tenths bushels to the acre. Very well. If corn now only brings twenty-two cents a bushel, I find by figuring cost and outcome on the acre that on the average produced in this State the market price just mentioned leaves a deficit on each average acre of corn in Illinois—a deficit of something like a dollar and sixty-eight cents. If my own crop then turns out to be no more than average, my farm this year, at the ruling price, I find is not self-sustaining. On the other hand, by as much as my crop exceeds the average, I find my farm raised up towards a self-sustaining figure. In my District we are self-sustaining because we raise enough beyond the average. In some others, however, they do not, and they have got to stand it.

It may perhaps be asked, how is it that some of our most fertile counties seem to be decreasing in population? I will tell you. When land gets so dear that people cannot afford to buy it, they move away where they can find it cheaper. And thousands are doing that very thing in this country every year, while many are drifting into other occupations besides farming. Within the last two decades more than one county in my Congressional district has decreased in population, while the cities have been growing larger. That is the history of this matter.

For my part, I am not going to waste any more money on wheat at present prices. We find that grass in our District is the best crop we can raise. We raise it cheaper and we always find it in demand. On the whole, therefore, taking my whole District together, I must say we find ourselves in a pretty good fix, in spite of the low price of corn.



W. H. WALL.

The President: The next is the Sixteenth District. Senator Wall, Director.

Hon. W. H. Wall, of Macoupin county: Mr. President, the counties in my District are Calhoun, Cass, Green, Jersey, Macoupin, Morgan, Pike and Scott. I shall not be able to make a full report, but so far as I am able to learn—and where I make a mistake I hope to be corrected—beginning with Calhoun county, they have an organization there, which was established early, and which is in very good working order. They held their last meeting in that county, I think, some time in the early part of December. As I said before, however, if there are any delegates here who find me making misrepresentations, they will understand it is not my intention to do so, for I report only what I have learned by correspondence and I may not be correct. Jersey county has not yet organized, as I understand, but organization there is in progress, and on the twentieth of this month,

or thereabouts, I think they expect to have their meeting and to be thoroughly organized, with a Farmers' Institute under the law passed by the last legislature. In Pike county, as I am informed, they are organized and have been for a number of years, and are in good working order. Their meeting, I think, convenes to-morrow or next day. Some of the delegates from this county are here, and at the proper time they will, no doubt, give you a history of the work in Pike much better than I can give, for I do not attempt more than an outline. As to Morgan county, I do not know whether it is organized or not.

A voice: Yes, sir, Morgan county has a good Institute.

Mr. Wall: Thank you. I have written over to Morgan, trying to find out something about the county, but could get no answer. I went to no county myself to look after these matters, to see who were or were not organized under the present or any other law. So then Morgan county is organized, and I suppose in working order. Green county, I understand, is also organized, and they intend to have an early meeting there, as I learn by a letter I have received lately. In my own county, Macoupin, I believe we have yet had no meeting. At least I have not been able to learn of a meeting being held under the law passed at the last session. There are several granges in our county, and I have been in correspondence with some of our farmers, with the intent sometime next month to have a meeting, and, if possible, bring all the grangers there together to form a Farmers' Institute. I have the names of some of the Secretaries in different counties of my District, which, however, it is not necessary to name here. I have no written report prepared to hand in, but if it should be required I can make one before I go home. I believe I have gone over the list of counties in my District, and while I do not want to say that ours is the best District in the State, I do believe, Mr. President, that it is quite as good as any. I believe, when it comes to intelligence, industry and the raising of crops, the Sixteenth District comes right close up to the very best.

The President: We will now have a report from the Seventeenth District, represented by our Secretary, Mr. Mills.



CHARLES F. MILLS.

The Secretary: Mr. President, I do not want to make a very extended report, because there are representatives here from every county in the District, which is near the Capitol, and will be called on for reports of their respective counties before the adjournment of the session.

The Seventeenth District is composed of the counties of Christian, Logan, Macon, Menard and Sangamon.

The Institutes in this District were organized and officered as follows, and have or will hold meetings as noted below:

Christian—Organized January, 1891, Institutes held January, 1891; January, 1892; January, 1893; January, 1894; January, 1895. Next meeting January 23-24, 1896, at Taylorville. Officers: President, Harry Grundy, Morrisonville; Vice-President, George Large, Owaneco; Secretary, J. W. Hunter, Owaneco.

Logan—Re-organized December 28, 1895. Institutes held January 2, 1888; June 1, 1889; January 31, 1890; February 28, 1891; December 21, 1892. Next meeting February 7 and 8, 1896.

Officers: President, George Wendell, New Holland; Vice-President, William Evans, Lincoln; William Fogarty, Jr., Lincoln, A. B. Nicholson, Treasurer, Lincoln.

Macon—Re-organized December 13, 1895. Next meeting, January 29-31, 1896, at Decatur. Officers: President, W. T. Moffett, Bovdy; Vice-President, Wm. H. Bean, Blue Mound; Secretary, C. A. Thrift, Forsyth; Treasurer, C. H. Scott, Mt. Zion.

Menard—Organized December 14, 1895. Next meeting March 13-14, 1896. Officers: F. H. Rankin, Athens; Vice-President, Homer J. Tice, Greenview; Secretary, H. A. Wood, Petersburg; Treasurer, J. R. Bergen, Petersburg.

Sangamon—Organized 1892. Institutes held March 15-16 and December 7-8, 1892; March 22-23 and December 19-20, 1893; April 3-4, and December 4-5, 1894. Next meeting December 4-5, 1895. Officers: President, John Upton, Springfield; Vice-President, D. A. Brown, Springfield; Secretary, James A Stone, Bradforton; Treasurer, L. H. Coleman, Springfield.

It will be seen that Farmers' Institutes have been held in each county in this District.

The Institutes in the counties of Logan, Macon and Menard have been reorganized since the recent act of the General Assembly creating the Illinois Farmers' Institute.

The county institutes in this district are managed by successful and progressive farmers, who are deeply interested in the advancement and general adoption of the best methods of agriculture.

The county institutes in this district have served an excellent purpose in stimulating our producers to unite in fostering all matters calculated to promote the material interests of the breeder, horticulturalist and general farmer.

The Farmers' Institute work in this congressional district is in a prosperous condition, and the agricultural outlook is encouraging.

The President: The report of the eighteenth congressional district will now be presented by the director, Mr. W. E. Robinson.



W. E. ROBINSON.

W. E. Robinson: Mr. President, ladies and gentlemen of the Illinois Farmers' Institute: Perhaps in no district in the State of Illinois is there represented such a diversity of soils and agricultural occupations as may be found in the eighteenth congressional district. Extending as it does from the Mississippi river on the west, more than two-thirds of the entire distance across the State, and from range 3 to 15 inclusive, north of the base line, the man is hard indeed to satisfy who cannot find within its limits an abiding place suited to his particular method of luring Dame Fortune to smile upon him as a result of his intelligent cultivation of the soil.

The waving fields of wheat in Madison and Montgomery counties, the rustling fields of corn in Shelby and Moultrie counties, the diversified grain crops and heavily laden orchards of Bond and Fayette counties, the broad acres throughout the entire district carpeted with blue grass and clover, upon which are seen

grazing the massive steer for the shambles and the gentle dairy cow are living evidence of the people's right to claim residence in the garden spot of the world. Ours is a busy people, but not too busy to leave the plow, the pruning hook, the feed lot and the separator long enough to meet together and discuss methods whereby better results may be secured from their efforts, and to learn from the experience of others.

In some of the counties of this district the holding of an annual Farmers' Institute has become a fixed event, and the regularity with which they are held is the best possible evidence that those who participate in them find them productive of good results. In Bond county for the past few years a display of the products of the soil and the "plums" from the flock and herd has been added to the regular features of the Institute, and so attractive have the program and display become that, at the meeting held September 17 and 18, no less than two thousand people were in attendance. This meeting was held at the village of Sorrento, under the able supervision of Mr. I. H. Dewey and Mr. John H. Grigg, as president and secretary respectively.

I think Madison county has not failed for some years past to hold its regular Institute, and this year was no exception. An exceedingly interesting program was prepared for the meeting, held at Edwardsville, December 10 and 11, 1895, and I regret more than I can tell that circumstances arose which made it impossible for me to attend.

Under the efficient direction of Hon. John M. Pearson, of Godfrey, as president, and E. W. Burroughs, of Edwardsville, as secretary, the program was carried out as arranged, and those in attendance report a pleasant and profitable meeting.

I have been in correspondence with the leading farmers of the other counties of the district, and find them anxious to arrange for Institutes, and should have done so before the State meeting but for the shortness of the time in which to properly organize the farmers and enlist the active aid of men and women competent to lead the discussion of topics of general interest. That such meetings will be held soon no one need doubt. In fact, Montgomery county has already perfected an organization, and will hold an Institute on the 20th inst.

Moultrie county is deserving of special commendation for the efforts made. Mr. George W. Vaughn, of Sullivan, and Mr. T. H. Crowder, of Bethany, were in attendance at the State Conference of Institute Workers, and have perfected an organization, and will probably hold their Institute during the latter portion of this month.

The interest in the work is wide-spread, and the feeling prevails that since the legislature has created a body under whom the work can be systematically done, that a series of meetings should be arranged for the various counties for another year, so that there may occur no confliction of dates. Such an arrangement will enable those of one county to attend the Institutes of other counties, and in this connection I would suggest that the various programs be arranged with this in view, so that a repetition of discussion might not make these visits tiresome and monotonous.

In conclusion, I want to suggest that these programs be made interesting to the boys and girls. The school boys and school girls of to-day are the farmers and farmers' wives of to-morrow, and as such are entitled to our most distinguished consideration. Let us enlist the teachers and educational men and women in our cause, that their training of, and advice to our children may lead them to know that a nobler calling than that of farmer does not exist, and that, when they exchange the pure air and golden sunshine of the country for the stifling atmosphere and smoky sky of the city, they are exchanging gold for dross.

The President: The Secretary will make a report for Hon. W. W. Wallace, the director for the Nineteenth district, who is unavoidably absent on account of a personal injury, much to the regret of this convention.

The Secretary: The counties composing the Nineteenth district are Clark, Coles, Crawford, Cumberland, Edgar, Effingham, Jasper, Lawrence and Richland. In behalf of Mr. Wallace I will say that he has made an earnest effort to organize an Institute in each county in the Nineteenth district, and but for the accident referred to by the President, which has confined him to his house for some time, there is every reason to believe that Mr. Wallace would have been in attendance at this meeting, with a very encouraging report concerning the condition of the Institute work in each county in his District.

Institutes have been organized in the counties of Clark, Coles, Edgar, Effingham, Jasper and Lawrence.

Mr. Wallace has been very busy with his pen, urging his friends in the other counties to perfect organizations, and in the near future there will be an Institute in good working order in each county in the Nineteenth district.



W. W. WALLACE.

The President: How about the Twentieth district?

The Secretary: Doctor Berry, the director of the Twentieth Congressional District, confidently expected to be present at this meeting and submit a report of the Institute work in his District. The following counties constitute the Twentieth district, viz.: Clay, Edwards, Franklin, Gallatin, Hamilton, Hardin, Jefferson, Wabash, Wayne and White.

Doctor Berry has been very active and successful in his efforts to organize County Institutes in his District, and since the passage of the recent act creating the Illinois Farmers' Institute, County Institutes have been formed in the counties of Edwards, Hamilton, Wabash, Wayne and White. The Jefferson County Institute was organized in 1894. The Institute meetings held in the Twentieth district have been well attended and much interest manifested in the proceedings, according to the reports.

The President: The next to be heard from is the Twenty-first district, by Mr. Ogle.

A. B. Ogle, of St. Clair county: Mr. President, ladies and gentlemen: I have been a little bit surprised at these reports this afternoon, to hear so many hailing from the garden-spots and the very best districts in the State; but the idea strikes me that, like Mr. Dean, who was not dissatisfied with the condition of the farmers, I ought not to be dissatisfied with such an apparent prevalence of extraordinary fertility, for I am from Egypt, and in reply am prepared to say that when the chinch-bugs deplete your corn, and humbugs your pocket-books, you can come down to us and fill up again from our overflowing granaries.

My District contains seven counties, and only three of them are organized. They are St. Clair, Marion and Perry, while the unorganized counties are Washington, Clinton, Monroe and Randolph.

As to the agricultural outlook in my District, I might just as well say it is about the same as that of the districts already reported; nothing different. And these reports are apt to become a little bit tedious; but if you would like to hear a few details as to our method of Institute work in St. Clair county, I will give them with pleasure, for it will take but a few minutes.

We have had but one meeting under the present law. They used to hold meetings under the management of the State Board of Agriculture, in connection with local assistance. The way we have done was to send out about eleven hundred personal invitations, or to as many farmers as we could afford postage for and printing of bills advertising reduced railroad rates. This was to work up interest in general. The great trouble in this institute work is, first, to get the farmers to come out, and second, to get them to take part. There is plenty of latent talent among the farmers, if you can only get them to overcome their innate modesty and diffidence to appear in public meetings. Another difficulty we have to contend with is to cut short long-winded speakers. These Institutes must be conducted on business principles, and our way was, when the time was up, the President stopped them and went right on, without delay, to the next topic for discussion. That is the only way to meet that difficulty. Of course the advantage of a good speech is sometimes lost, yet this seems to be the best course of proceeding, on the whole.

To illustrate, I could keep on talking here myself for an hour or two but as there are others to be heard and that you want to hear, and as also, by a change of program, I am set to read a paper to-night, I ought not to tire you out beforehand, so will say no more at present, expecting to take part in discussions as they come along.

The President: The Secretary will now give a report upon the Twenty-second district.

The Secretary: No report has been received from Hon. H. P. Burroughs, of Elkville, as to the condition of the Institute work in the Twenty-second district, which is composed of the following counties: Alexander, Jackson, Johnson, Massac, Pulaski, Pope, Saline, Union and Williamson. Farmers' Institutes have been organized in the counties of Johnson and Pulaski, the former in 1891, and the last named in 1895, since the passage of the law creating the Illinois Farmers' Institute.

COUNTY REPORTS.

The President: The Secretary will now call the roll of counties, and delegates present from those counties will probably have a word to say about their respective Institutes. We desire all the counties to be heard from. Let remarks be brief and to the point—not to exceed three minutes.

The Secretary: Adams county.

S. N. Black: Mr. President—

Mr. Deane: My right-hand man, Mr. President.

Mr. Black: And I may say friend Deane has done his best from the first. Our Institute in Adams county is not likely to die or fall down. We have good hope to be able to keep it up. We held one meeting in November and expect to hold one more sometime during the winter. I think probably that is enough to say.

The Secretary: Bond county.

Mr. Hartley: Mr. President, gentlemen and ladies, I am glad to meet you, and feel that this is the hardest task of my life, to get up in such a body of people as this and offer to represent my county. But it is an honor, and an honor that I had not expected.

When I first came to Bond county, I knew nothing about farming, although I could tell you all about a shop; but I thought what others had done could be done again, and my motto was, "a fair day's work for a fair day's wage," and so I got along. What we want among the farmers to-day is to have them feel that they are as good as Governor Altgeld is, when he gets into a crowd. My observation has taught me that farmers are apt to think they are below the manufacturers, and it is not so. If it was not for the farmers, they would starve to death.

Now this is the way we talk down at our Institute, and we carry the thing on successfully in Bond county. We meet there once a month, on the last Saturday, at 2 o'clock in the afternoon. We try to get the best speakers to be had, and we try to have questions relating to the seasons in Illinois, as for instance, how to plant, and what is the best mode of planting. I told one young man he had better cut his paper in two. You know you can cut a potato in two and plant the two halves and one of them will come up a week before the other. When you bury the eye side down it is contrary to nature. His paper was so long I told him he ought to cut it in two. (Amusement.)

We had the best meeting of farmers, when the chinch bugs were eating things up, and when someone sent off for poisoned bugs to tickle the others with, supposing they would all die together, but they didn't do it. (Amusement.)

The President: We shall have to limit the time of speakers. The Champaign county delegates will probably be here on the 4 o'clock train. The next county.

The Secretary: Christian county. Mr. Grundy is the president of the Institute there.

Mr. Grundy: Mr. President, I have very little to say with reference to our Institute, except to state that it is in excellent working order. It has now been in existence five years. It has not had a very rapid growth, which I think is all the better for it, for I have not much faith in mushroom growth of any kind. As has been before remarked, farmers are slow and conservative, and as a rule modest and diffident about coming forward, and as a rule a conservative man, when you can get him started, keeps on going, and that is an important advantage in respect to Farmers' Institutes. They are of slow growth, but after you get them started they will keep at it and go on with regularity. Our attendance is increasing every year.

There is some connection between what has been called Yankee culture and forecast and the Farmers' Institute; in fact they are intimately connected. Our county is so situated that it can produce winter wheat about as well as corn, although it is strictly in the corn belt. Farmers have been largely turning their attention in the past to wheat, because it was a crop that required little capital, gave less trouble and was ordinarily very profitable. Since low prices in wheat have prevailed, however, our men have been compelled to turn their land to stock. Now stock requires a good deal more management, closer attention and a wider range of information, and the consequences of ignorance in respect to that industry are more disastrous. That of course tends to make the people up there interested to inform themselves, and so those who have been wheat men come to get the information they are seeking for, and by such means I think our Institute on such lines will continue to grow.

That I believe is all I have to say, and all it seems to me that is necessary to be said about my county now.

The Secretary: Coles county; W. J. Watkins, of Charleston.

Mr. Watkins: Mr. President, I was appointed a delegate with two other persons, but the others have failed to materialize. With regard to the work in our county, we have been trying to hold Institutes there for several years. Some four years ago—may be a little longer and perhaps not quite so long—we had some members of the State Board there, and a man from the northern part of the State, President of the State Dairy-

mens' Association, and we also had Professor George E. Morrow, a man most thoroughly in love with the farmers, and some other good men, all in attendance at our Institute; and to my mind and that of a few others among us there was at that time a vast amount of information thrown away, for while we have been trying to hold Institutes there ever since, our great lack is to get the audience; if we could only get the audience, we might have good meetings, but there lies our trouble.

Now I would like to ask if it would not be a good thing for us to call in a little missionary assistance. We would like to have some of you come down there and try and help us out. There is something wrong in our county and I don't know that I can tell you just what it is, but if you will come down it may be the thing can be got in proper shape. For one thing, our President is engaged in teaching, and for the last two years has failed to call a meeting till after school closed in the spring, when it is too late. That has been one reason why we have failed to get a good attendance. We were under the impression that the law had been so changed, we might look for help from our State Agricultural School or College, but how that might be we did not know. If you can give us any assistance we shall be thankful, for as we might say the outlook with us just now is much better than the income. (Amusement.)

The Secretary: DeKalb county. Senator Hunt.

Mr. Hunt: Mr. President, I will go back, if you please, to 1873, when the farmers were first organized in our county. Since that time, we have established a good many branches. The constitution we then organized under was drawn up carefully, and it was a good one. We ran our County Institute at the time under the name and style of a "Grange." The farmers then used to get together, and the time making it pretty hard to pay their bills, the occasion has improved to enforce upon them the idea of paying cash for all they got, the motto urged upon them being, "Pay as you go, and if you can't pay don't go." Under this doctrine after a while our farmers got out of the habit of buying on credit, and to-day the custom there is to buy only as they have the money; so each farmer before he leaves home makes out his list of what he intends to buy, and the result is a saving of from ten to twelve per cent on the year's outlay.

The old organization in our county grew until it got to be a tremendous one, and the members got to thinking they were going to control the politics of the country. They used to meet then in the summer time, and I don't know that I ever saw a larger gathering at that time of year, when the question came up as to going into politics. It was finally determined to go in. They went in, accordingly, and joined the fight, and from that day until our reorganization under the form of the Institute, the so-called Farmers' Ticket has never again been heard of.

The fact is, we found, when you go to mixing up politics with a farmers' organization you are bound to kill it. Keep it in line with farming interests strictly and you will succeed, but mix politics with it, it is sure to fail. If kept in its place the Farmers' Institute, I think, will grow, and I hope this State Institute will urge upon the counties the propriety of keeping their organizations free from politics, for my experience is that politics will kill a farmers' meeting every time. It got so finally that at our June meeting there was sure to be a rough and tumble political fight.

But at our Institutes we have had on exhibition all kinds of cereals. The farmers of my township showed thirty-two different products from a single kernel of corn. I wish I had kept the paper stating the different grades of oil, sugar and so forth, but there were thirty-two different kinds of manufacture from one single kernel of corn. No wonder corn is king. No wonder there has been great contrivance to raise the biggest crops. Our crops are big enough, but we can't get anything for them. What inducement is there to raise heavier crops of corn under prevailing prices, I would like to know?

The Secretary: DeWitt county.

Mr. Watson: Mr. President, I hold in my hand a program of our County Institute for this year. And I will say we are trying first to encourage home talent and draw it out, and again we are trying to promote educational and social enterprise along with farming interests, and so at our evening meetings we have had addresses by our State Superintendent. We have perhaps one of the largest county institutes in the State, representing as large an acreage of corn as any other county, and the quality of our corn this year is of the finest. But above all that we try to interest ourselves about the educational and social improvement of farm life, recognizing the fact that neglect in these particulars has been one of the chief reasons that our young men have been drawn away from the farm—neglect of these things, and in their stead too great concern in mere dollars and cents.

The Secretary: Ford county.

Mr. Grimsley: Mr. President, I have been very much interested in what has just been said about the improvement of farm life. The farm is a fine place to raise hogs and sheep and cattle, but it strikes me it is also a fine place to raise good men. If you look over this country I think you will find that some of our very best men have come from the farm, and even some of our best business men spent their boyhood there. But I will not stop now to talk about that to farmers.

Ford county has had an Institute for several years. Next week we shall hold a meeting. We have never had one that was not a success. We don't know enough in our county to dabble in politics, or else we know too much. You can't go anywhere but you find politicians, any of whom can tell you how everything should be done, and they all appear to know a good deal more than our statesmen do, for they can tell you just how the nation's finance should be run, though sometimes by no means in the best circumstances themselves. But we have kept clear of all that sort of thing in our county, and we have got a good Institute. One gentleman who spoke thought the organization in his county to be one of the best, but we can beat him, and I don't think there is one in the State to surpass ours. Ford county has rather a peculiar shape, a good deal like a plasterer's hatchet. I don't know how it happened so. But I better stop, for fear of the President's hammer.

The Secretary: Hancock county, Mr. Dennis.

Mr. Dennis: Mr. President, Brother Deane has held up the reputation of my county pretty well, and as he says, we can raise more than a hundred bushels of corn to the acre and forty bushels of wheat; and besides a hundred bushels we have hog cholera until you can't rest.

But we have got a very good Institute. It has been running a number of years and we have paid for it ourselves. To be sure, when State aid came, we accepted it, and if the State wants to give aid again we shall accept that. But if you want to know more than I can tell you about our county institute, come over to Laharpe on the fifth and sixth of February, and we will show you practically how it works.

The Secretary: Iroquois county.

Mr. Mann: Mr. President, our Institute has existed ten years. We exercise home talent, and besides, we get the best papers we can from other states, as well as other parts of our own. Our treasurer for last year shows an expenditure of two hundred and fifty dollars, all raised by private subscription.

The Secretary: Jefferson county, W. E. Garrison.

Mr. Garrison: Mr. President, we organized twelve years ago and have been running successfully ever since. We accepted the aid offered by the State, and our Institute is now in very good working shape. I will state, if there is anybody present connected with a tile factory, who wants to build where money can be made, we would like to have him come down to our Institute, and we may help him to start a factory down there. We need it.

The Secretary: Kane county.

Mr. Stewart: Mr. President, in this Institute matter Kane county amounts to nothing. Can not get an organization there. It is a little bit of a county, thirty miles long by eighteen wide, and filled with towns and cities from Aurora to Elgin, and besides it is not far from Chicago. So it is a very hard matter to start an Institute there. I have done everything I could, but I had not much time or brains to work with. I will try again, but it is hard work there to get up interest in an Institute, for the cities care nothing about it. In fact, I see the balance of the district makes no report here, except LaSalle, which, like my own, amounts to nothing.

The Secretary: Kankakee county.

Mr. Barnard: Mr. President, we organized an Institute before the late law was passed, but there has been no great activity in carrying on the work. Ours is a pastoral district. We have not had a meeting since a year ago last March, and to illustrate the idea people have of the movement up there, on the next evening after the meeting, at a social gathering where some of us were known, they seemed to think our Institute was what is known as the Farmers' Alliance. There is a field in our county for work in the line of the Farmers' Institute. We have farmers, and they are officers, too, who have made no effort to hold a meeting for the last two years.

One gentleman over here said something about the policy of using new attractions. We have tried to make interest for the Institute by mixing in humorous recitations, with music and songs, and we have made special effort in that way, but our people are conservative and a little hard to move.

The Secretary: Knox county.

Mr. Campbell: Mr. President, I do not suppose it is necessary for me to say anything about Knox county, where they make the vitrified brick. We have had there four very successful Institute meetings, each better than its predecessor, and as each delegate here seems to be trying to make out his own Institute to be the best, to convince you that ours really is the best, I will just point you to our last program.

(Here the speaker produced a paper and read from it several business advertisements of interest to farmers.)

We always get enough out of the advertisements on our program to pay all the expenses of our Institute, having a little left besides, and that little we use to pay the expenses of delegates to the State Institute.

(The speaker then also read the order of exercises from the program, a varied and inviting menu of subjects, treated by persons of mark, and covering a wide range of practical interest to farmers and others, from the keeping of cattle to the wonderful motive powers of electricity.)

You see how we manage in Knox county, and we expect to continue these Institutes there on the same line hereafter. And if any of you wish to see just how the thing ought to be done, come and attend our next meeting in February.

A voice: What is the expense of your program?

Mr. Campbell: The total expense is about two hundred dollars a year, paid for by the advertisements on our program.

A voice: Do your speakers serve without compensation?

Mr. Campbell: All they ask is that we pay their expenses.

The Secretary: Lee county.

Mr. Judd: Mr. President, we have had a good many Institute meetings in my county. One gentleman speaks about interesting home talent. We don't find that to work first-class with us. People want something new and original from the outside. The old saying is: "A prophet is not without honor save in his own country." So, if you can get three or

four public speakers from the outside, you will be apt to have a better attendance than if you do not. At the same time work in all the home talent you can. We try to keep ourselves within the amount of money we feel able to spend, and we make fifty dollars cover it generally; but if we have seventy-five or a hundred dollars, we make the best use of it we know how. The value of outside help is that it brings us into contact with new ideas, and new ideas bring in an enlargement of business. The old program of plowing, sowing and reaping, the tax levy and stock improvement is well enough proportioned to the weak brain power involved, but when you get farmers to thinking you open up a field that makes the Institute attractive, and then they are going to attend. For farmers are hunting after new ideas to get wealth, and that will bring them out to the Institute if you show them you are going to help them to new ideas; and then you will never have to invite the same man twice. They want something new each year, and the very fact of offering a chance for knowledge becomes an attraction.

Then, too, we offer prizes. For instance, on Hard Roads as Advantageous to the Farmer? And we offer a prize for the best essay on each agricultural topic, letting the writer choose whatever subject he is most familiar with. Such essays are read at the Institute meetings. This course brings in another class who want to hear what their friends are doing. In our evening programs we always make it a point to have some extra topic designed to open up new ideas about the best way of conducting a farm. That we make one of our principal objects. We also try to emphasize special lines, separate from general farming, designed to show how a finished product commands the tip-top price. This we think tends to produce the best results. Besides, we try to incorporate into the minds of farmers the advantage of looking to the agricultural experiment station at the State University, results there being such as could not be developed by private experiment without great expense; thus to keep ourselves in touch with our leading minds at the University, and with their aid accomplish more than we could by ourselves. In our locality we try to cover several different branches of farming so as to bring in the different classes, each for the sake of the topic of special interest to that class, and so we devote part of the time to dairying and part to the raising of horses, cattle and hogs, and so forth. So, whatever may be a man's special interest, he will be apt to find something at our Institute on his particular point.

The Secretary: Macon county; Mr. R. M. Bell.

Mr. Bell: Mr. President, I am not quite sure but the Macon County Institute has appointed special delegates to this meeting, and if so, and they are present, I hope they will rise, because I do not want to make a report myself over their appointment.

In Macon county we have just completed an organization, and it was the easiest thing done in the world, and I do not know why it was not done a long time ago, because Macon county people are not apt to be behind, and are generally right up with the times. I suppose, however, nobody happened to think of it, for when it was thought of the thing was done in twenty minutes. A program has been made out and a meeting will be held on the 29th and 30th of January; and while that will be our first meeting, we expect it to prove a very clever one.

I do not know how much our executive committee know about the matter or how much they are doing, but Macon county does not do things by halves. The city of Decatur, its county seat, is right in the center of Illinois, or within twenty miles of it—closer than Springfield is. And the county raised so much corn this year it came near never getting it gathered; and it never would have got it gathered but for the dry weather and the chinch bugs. No cribs—have not plank, enough in fact, to fence the crop in. Macon county, then, will do a big thing, and if it does not succeed at its first Institute it will try again. We have more miles of street railway in Decatur than are to be found in any other city of the State outside of Chicago, and more miles of brick-paved streets than any other town outside Chicago.

A Voice: Do you raise corn on your brick pavements?

Mr. Bell: No, sir; but as I was saying, Macon county does things on a big scale. There have been five hundred houses built in Decatur this year and a great many others throughout the county. And we have more big men and pretty women in Macon county than in any other county in the State. (Laughter and applause.)

The Secretary: Macoupin county; Mr. C. Capps.

Mr. Capps: Mr. President, we have been having an Institute in our county for several years, and we can tell as big yarns as any other county; in fact, we can make out the state of Macoupin to be the banner state. We would be very glad to have you come down to our Institute.

The Secretary: Madison county; J. M. Pearson.

Mr. Pearson: Mr. President, we have an Institute in Madison county and have been having one for a good many years, and I expect we shall keep on holding meetings down there after the rest of the State have got tired of holding them. But our Institute is like some others; we get up a splendid program, hire a first-class, comfortable hall to meet in, and then cannot get very many farmers to attend. In fact, I am inclined to think that the counties which are really the worst off in respect to farming hold the best Institutes. (Amusement.) I know a county where they cannot get enough together to form an Institute, together with the county just north of it, and as you pass along through on the railroads, stopping at their towns and seeing the amount of business done, no two counties in the State present as fine an appearance as they do. Now that is the condition in my county. We get up a nice program; I have it in my pocket now; but it is hard to get the attendance. The best attendance we secure in the smallest towns. I was struck by what Mr. Deane said—that he could not hold an Institute meeting in Quincy. It would be no use to try to hold one in Chicago, for you could not get an attendance big enough. As I said, we get the best attendance in small places. We advertise through the local papers, which charge us nothing for it, and all who are interested come in. We will, perhaps, start out with an evening session, filling the biggest hall in the place. We make it a point to get someone supposed to know a little more than we do on subjects for discussion; this year we had a professor from Champaign University, who told us about chinch bugs. He showed us bugs or the eggs of bugs which we could not see with the naked eye; we looked through his glass. And so we had a very interesting meeting, and everybody there enjoyed it. At least they said they did. But in a county like ours, of fifty-five or sixty thousand people, we get about seventy-five farmers to meet with us in the daytime; in the evening, having exercises of a more general character, we get a few more to attend. Our county, however, has had as big crops as any other. We have raised as high as three and a half million bushels of wheat, and can do it again when people are ready to pay for it. But when it comes to raising wheat at half price, we are going out of the business, gentlemen. (Applause.)

The Secretary: McLean county.

Mr. Bonnet: Mr. President, I will say that it takes two of us to represent so big a county as ours, and I speak for both of us. We have heard a good deal from sister counties about big crops, and while we may have no specialty in corn, cabbage or potatoes, yet we have in the county a little of everything. I am glad, though, to live in the midst of such a grand sisterhood of counties, from which to draw sustenance ourselves, if at any time we fail to have enough to carry us through.

With regard to Institute work, I will say this is the first year we have held any meeting for some time. There was formerly, I believe, an organization under the auspices of the Grange Association, but in November this year there was a movement made to organize an Institute, and on the 20th of December we held a very good meeting. The weather happened to be very bad, with an exceedingly heavy rain at the

time, so that the attendance was not large, but the people seemed interested. Our program was made up mainly of home talent, although we had two excellent papers from professors of the University of Champaign, and I believe, also, one or two other papers from outsiders. The rest of our program was all made up of local talent. I think our Institute is well established and will be able to do better work in future.

The Secretary: Menard county.

Mr. Tice: Mr. President, we have just organized a Farmers' Institute in our county; it was done, I think, about four weeks ago. The men in charge of it were almost all farmers who know well enough how to work on the practical side of farming, but who would like to know a little more on the theoretical side. We expect to hold an Institute meeting some time in February, and we are now arranging for the meeting. It is a new experiment with us, and I am glad to get so much information from those present who are older in the work and know more about it. We hope to derive great benefit from the Farmers' Institute, and I believe the enterprise will prove a great advantage to every county and to every farmer in the State.

The Secretary: Morgan county.

Mr. Hackett: Mr. President, we have not had much experience yet. There is a question I cannot decide as to whether it is best to rely upon local or foreign talent to carry on the Institute. We have employed local talent as far as we could, and I believe an Institute well managed may be made productive of great good. Ours has certainly proved interesting.

Many of the delegates here have seemed inclined to boast what their counties could do. Morgan county is pretty well known. It used to have a monopoly of institutions to care for the insane; now, however, the feeble-minded can go to Lincoln. Morgan, I believe, stands fairly well in the State, and I hope the Institute we have tried to establish there will prove prosperous, and that we shall have more of our citizens to attend the State Institute hereafter, to get the benefit of the wisdom developed here.

The Secretary: Pike county.

Mr. Wynn: Mr. President, we have been holding Institutes in Pike county for the past six or eight years and they have now become a fixture there. Our farmers and also the citizens of the town, wherever the meetings are to be held, have got to looking forward to them with a good deal of pleasure. We have, I think, now the best program we have ever arranged, and our farmers particularly are taking great interest. One trouble we have had, already referred to by one of the delegates here, that some of our men have been apt to talk too much and too loud; and so we have tacked on a five-minute gag, to shut those fellows off, and having done that, we get along now all right.

Delegates here have gone on to tell what their counties have done, and I may say, therefore, that we have the very finest land and we grow the very finest crops in our bottoms. Then, too, we have the very finest rolling land, where big red apples grow, and the very best that can be raised anywhere. This year there was a big crop, and one apple grower refused seven thousand dollars for an eighty acre orchard fifteen years old; another four hundred an acre for a twelve year old orchard. I may say in addition to that, we have raised some very good men, and among them we can boast of having produced in our borders such as Scott Wyke, A. C. Matthews and Assistant Postmaster General Frank Jones.

The Secretary: Rock Island County.

Mr. Campbell: Mr. President, our county has been engaged in Institute work for eight years, and for three years that work was conducted by subscription. Since the State has made an appropriation, we have accepted the proffered aid. We have had fairly good meeting. Some of the farmers, however, were afraid it was to be made a political machine

and so were shy about attending, while others tried hard to make a political machine out of it; so it required effort on the one hand to keep it out of politics and on the other to persuade men that we had done so. Ours is a peculiarly shaped county. It is seventy-two miles long and only twelve miles wide in the widest part, being but two miles wide at each end. We have had four Institute meetings each year. So far we have used only local talent, but we are getting tired of hearing the same old fellows blow their bazoos, so we shall try to get help from outside. I wish somebody would come up and show us how to cure the hog cholera. Ours is the greatest brick county in the State, and our brick of the best quality for all I know. They tried to get established in our county an institution for the insane, because we have there lots of water—and that is all we drink up there, gentlemen. Come up and see us.

The Secretary: Sangamon county.

Mr. Charles F. Mills: The Sangamon County Farmers' Institute in more than one line of its work is worthy of emulation. In the arrangement of the programmes, the committee first select the topics concerning which the great majority of the farmers of the county should consider to insure the best development of its agriculture. After the subjects for discussion have been decided upon and speakers selected, the programme is printed on the last page of the four page bulletin of the Illinois Farmers' Institute.

Advertisements of merchants are secured for two outside columns of space on the last page of said bulletin, sufficient to provide revenue for printing six thousand copies and postage required in mailing a copy to each farmer in the county.

The bulletin prepared by the Illinois Farmers' Institute and referred to above contains "up to date" matter on Advanced Agriculture by the President of the Illinois State Board of Agriculture, suggestions for promoting Agricultural Education by the Dean of State Agricultural College; Horticulture by the President of the State Horticultural Society; Farmers' Institutes by the Secretary of the Illinois Farmers' Institute; The Dairy Industry by the President of the State Dairymen's Association, and other matters of especial interest to progressive farmers.

At the close of each Institute six thousand copies of the proceedings, papers, discussions, etc., are printed, and a copy sent to each land owner in the county. Advertisements are readily secured from merchants and business men, to cover the expense of publication and mailing of the report containing the proceedings of the annual meeting to each farmer in the county.

The early organization of the Farmers' Institute in Sangamon county, and the frequent and interesting meetings held have been called to the attention of this convention.

The Secretary: St. Clair county.

Mr. Ogle: Mr. President, I was sent as one of the delegates, I believe, and I have had experience in this kind of work and can give some points that may be of value. Our plan is this, to get out the local talent, if possible, and to make that the main feature of the Institute. We also, however, have something from the outside to draw attendance. Our Institute is to be held on the sixth and seventh of February, and our program is made up entirely of local talent, with one exception. For an evening meeting we have tried to get David Ward Wood, but have failed, and now we are after Hon. Wm. H. Hodge. I do not know whether we can get him or not. Our idea is, while not confining the meeting to either local or foreign talent, to make the local predominant.

The Secretary: Union county.

Mr. Goodrich: Mr. President, I am not a farmer myself and ought not to represent farmers. I am a fruit grower, and that is my business. Our county, however, produces also fine grain, grain that has taken a premium on grain that was grown right in sight of my house. I don't know how

many bushels to the acre we produce, but I guess as many as most, and I thought maybe more, until one man here got up as high as forty, and I don't think I can go over that. But our farmers raise very fine grain, and I know our fruit raisers raise very fine fruit. I think we must raise more than any other county in the State, because we ship fruit by the thousand car loads, and I don't think any other county does that. We have had Institutes in our county, but I could not give you the dates nor number of the meetings. If the theory of my friend Pearson is correct, that the counties that need Institutes the least have most of them, I do not know what to think. It must be we do not need them at all, however, for we so seldom have them.

The Secretary: Will county.

Mr. Thompson: Mr. President, with regard to our Institute, like the rest of the delegates, I will say I think our county has the best; and as I have attended a number is one reason why I think so, and another reason is that I found those meetings very well attended. We have a Masonic block in Joliet, in which are two large rooms, and we can crowd one of those rooms so full there will be left no place to stand. The other room we use for exhibition purposes, where we offer a premium on the best dozen ears of corn; we offer something also on oats and something on butter and canned fruit. Our merchants, too, who wish to advertise, offer five and ten-dollar premiums on different articles. All this brings out a crowd so large that, as I said, the hall is hardly big enough to hold them, and each year this crowd seems to be increasing.

The President: Gentlemen and ladies, that now completes the list of counties. A great many delegates are yet to arrive on the evening train. I have had word with respect to some who are to be here at 6 o'clock. I will now give notice that tomorrow morning at 9 o'clock will occur an election of the board of directors for the ensuing year, as provided in the act of the General Assembly. The different districts will please arrange themselves about the hall to suit their convenience, each district choosing its own director. The delegates from each district will organize, with its own chairman and secretary.

On the printed program you will observe the order of exercises for the meeting to be held this evening. This order will be carried out exactly as printed, with the exception that a paper by Mr. Ogle will be read in place of that expected from Professor Davenport, who cannot be here before tomorrow, and he will then take the place in the program assigned to Mr. Ogle.

The Institute will take a recess until 7:30 this evening.

EVENING SESSION—7:30 O'CLOCK P. M.

The President: The Illinois Farmers' Institute will please come to order. The first address of the evening will be delivered by Hon. S. M. Inglis, State Superintendent of Public Instruction, on "What is the State Doing for the Education of the Farmers' Children in Illinois." I now have the pleasure of introducing Mr. Inglis.



S. M. Inglis, State Superintendent of Schools: Mr. President, ladies and gentlemen of the Illinois Farmers' Institute, I have sometimes wondered why I am in the Farmers' Institute. I have farmed myself for three years; there is something in that. But when you attach to the subject the educational phase, then certainly it seems to me that in my office as State Superintendent of Instruction I ought to have a part with the farmers.

The question is, What is the State doing for the education of the boys and girls of the farmer?

I reply, it is doing a great deal, in one way and another; for in addition to the establishment of four normal schools to train efficient teachers for both city and country alike, the teachers of the State, I think, all recognize the fact that the rural districts constitute the substratum of the whole educational work of the State; and with that idea in view, in their State Association, sitting here at the Capital, the teachers of the State sometime ago appointed a committee to construct a course of

HON. S. M. INGLIS.
study which should unite the rural districts more closely with the towns and cities of the State. That course of study was constructed and adopted, and is now in use, by this time, I presume, all over the State. This course of study is designed to adapt itself to a regular grading of country district schools, as far as possible, to correspond with the grades in towns and cities, and it has been in use in the country already a long time. It is, however, a distinct law that everything now meets obstruction at the outset. In some places the course referred to is found to apply imperfectly; for the system as devised calls for an eight-months school during the year, consisting of a hundred and ten days, in order to entitle the school to draw the pay provided. In localities, therefore, which allow but five or six months school, the system fails to apply.

This shutting out the short-term schools from a share in the public compensation was sought to be remedied by a bill for a five per cent school tax, two-fifths of it for general school purposes and three-fifths for building purposes, with a proviso that any unexpended balance of the latter fund might be transferred to the former. This plan, however, the Governor, who dislikes to interfere unnecessarily, decided to be illegitimate, because capable of being abused; for a school board might purposely leave a surplus to be transferred every year, thus by indirection misappropriating public money, just as was done a few years ago in respect to serial maps, which never did and never will amount to any practical use, whereby some country districts were made to pay thirty-six dollars for a set which ought not to have cost over five or eight. The Governor, therefore, vetoed that bill, although its suggestion and the adoption of it by the Legislature were the fruit of a laudable desire to devote

more money to the public schools. And if we could only get through a reform, by which the rural districts could be made to extend the time of their schools to a uniform term of seven or eight months, instead of only six, and in some cases only five months in the year, there would follow a very visible increase of the amount of work done in the country schools, with such advantage to the schools that the tax-payers realizing it would willingly pay an additional cost.

The course of study then, referred to as already adopted by the State, would at once become adapted to the wants of all the rural districts together, lifting their schools to the same grade as those of the city and conforming them to what we call the University idea, which is to dovetail the country schools into the schools of the city and unite both to the University of the State, thereby throughout the State establishing a perfectly uniform system.

The great difficulty in attempting to open to country districts the benefits of the State University has been the lack of sufficient cultivation in the country, through a course of High School training. It is, therefore, in contemplation to ask the Legislature to give to the State Superintendent and such assistants as he may select, authority to formulate a standard High School course, capable of application to both city and country; providing for the establishment, in the counties, of township High Schools, which together with the High Schools of the city should be graded into courses of one, two, three and four years, with certificates for each course entitling the recipient in a lower to the next higher grade, and the four years High School graduate to an admission to the State University. Wherever necessary, also, two or three townships might be allowed to unite for the establishment of the requisite High School. In some such way a complete framework might be constructed to be capped and culminated at the top by the proper crown of our public educational system, the state University at Champaign.

Now in respect to the country schools it seems to me there is much aid to be expected from these Farmers' Institutes, and with this view I have felt justified in setting apart a portion of my time to the County Institutes, a number of whose meetings I have already attended. And I want here to apologize for not having attended more of them, from the fact that my time is so occupied by duties imposed by the Legislature upon the office, I do not find left all the leisure I would like to spare to these important organizations. I wish none, however, to think that my interest in the subject lags, for I fully recognize the fact that it is to the farm we must chiefly look, not only for the production of fine stock, but also of fine children to be trained into fine men and women, thus to solidify the interests of the State, and I feel that the school is so intimately connected with the home, the relation of the teacher to the home so important, and the direct interest of the boys and girls so dependent upon the proper establishment of the teacher, that I propose to make it the chief subject of my paper this evening.

Mr. Inglis then read the following address:

RELATION OF THE TEACHER TO THE HOME.

As Americans, we are a nation of homes; and while we have lost to some extent the power of an Abraham to command the children of our own households, still the fact remains that the pivotal point about which revolve the cycles of progress outward and upward is emphatically the home, be it ever so humble in its modest environments, or ever so high in the scale of propitious appointments. Granted, that some homes where squalor, want and sin abound, or where sinfulness in higher life exists, as in our larger cities, may be agencies in scattering seeds of corruption, scorching, with their iniquitous breath, portions of our fair domain, yet is it true that the home is the chief source of our prosperity, both in church and State. From it come our legislators, governors and presidents; our consuls and ministers to foreign courts, hence our

character abroad; our statesmen and philanthropists, hence our safety at home; our literary and educational men and women, hence our intellectual power and position among nations.

The home is the nucleus, about which cluster our prophecies, our fondest hopes of success; it is where our faith is strengthened and whence it is winged to higher flights of destiny.

Here the education of the child begins; its first teachers are its parents, the mother standing pre-eminent. This home-mother training is not only first, but more powerful than that of the schoolmaster. This is truly the mind-formation period, when disposition and character are shaped. Lord Brougham said: "A child gains more ideas in the first four years of his life than ever afterwards;" and a prominent educator of boys has said: "Give me the boy until he is seven years of age and you may have the man." The nursery hands over the child at six years of age to the school teacher, after his most vigorous training has been accomplished. Home training has been styled unconscious tuition. The plastic nature has been moulded into shape by its surroundings.

The agency by which the mother shapes the character and gives direction to the mind of the child are: (1) The affectionate tenderness which she displays in ministering to the wants and gratifying the desires of the child, and in sympathizing with it, and alleviating its distresses. (2) Her behavior as being delicate and refined, or coarse and rude, showing self-restraint and dignity, or manifesting impulsiveness or passion. (3) The tones of her voice sweet and tender, or harsh and discordant, firm and decisive, or weak and yielding. (4) The expression of her face implying similar traits. (5) The force of her will under the intelligent guidance of educational principles, and of restraints of conscience.

Moral growth, mainly, is stimulated by such training; the simple environments of the child are its instructors along this line, exciting its curiosity, and imparting to its growing mind ideas that are to constitute its stock in trade in its life-work. Here it begins, here it increases its vocabulary for its primitive efforts in learning to read under the careful guidance of the schoolmaster; here it sees the relation of one thing to another; of one thing to two things; of two things to one thing; it halves and quarters its apples among brothers and sisters; these little facts, perceived and held together with its restless curiosity, form the material basis of its power to master the combinations and separations of the numbers as the skillful schoolmaster leads.

This patriarchal or home-training has found its echo in modern European homes for many years, and it is a question of no mean import with many Americans, whether the child shall remain to receive its education within the home circle, or be sent to the public schools, in our towns or cities, and this power and authority be delegated to the teacher.

A representative democracy demands an intelligent constituency. To this end the public school system has been created, and the schoolmaster is abroad in the land,—not to prove his skill in educational tactics by his power to wield the cat-o-nine-tails, or subject his pupils to other cruel and outlandish punishments, but to build a noble character for the child; not to cram the mind with dry and burdensome facts, but to set on fire the soul, that it may burn up and purge away the dross, and see only the prevailing truths behind these facts of history and science; to develop in the pupils the power to get and retain potent facts, to formulate the truths to which these facts relate and to utilize them in influencing the growth of individual and material character; not so much to build schools of speculative philosophy as to teach the boys and girls the practical truths with which they may bridge valleys of discontent, tunnel the mountains of difficulty, and then the arts of peace and the pulsations of trade bring happiness and pour the horn of plenty into every home, in city and country.

Public school training increases the capacity of youth to grasp and grapple with the great problems of life in a manly and womanly way, thereby adding material wealth in the great push of progress and giving

hard and telling blows to the threatening forms of error that rears its hydra-head in the pathway of christian civilization.

The great army of pupils that sit on the forms before the teachers of to-day, in this country, comes from the American homes, and the great majority from our country homes. These children come, too, from widely different homes, with dispositions various, with inclinations often at variance with each other, and many with evil intentions aimed straight at his schoolmaster; some are curious, others careless; some would be busy if work were given them to do, others luxuriate in idleness; some are on furtive mischief bent, while others are innocent of this art; some are truthful and honest, others conceal the truth and apologize for it with a lie; some are miniature disunionists, others have been taught obedience from the cradle-hour; some have already tasted the intoxicating cup of anarchy, while others have imbibed the true spirit of the Golden Rule; some have been reared in a vitiated atmosphere, where every desire, every whim was gratified, low propensities were encouraged, and the will of the child was house-hold law,—one was taught to whip a bigger fellow than himself, and sustain the code of honor, another to own a box that could not be opened and fill it with money—not for heathen and missionary purposes.

The teacher's work is not only supplementary in character to the home training, but corrective as well. Not only must he augment as well as foster the good in the child, but he must as certainly purge away the evil in heart and head. Good habits must be preserved; bad ones lopped off.

The power to control the action and direct the thought of the child is delegated to the teacher by the parent. The teacher is said to be in loco parentis, and is so recognized by the law. Whether this is true in every respect, is not my province now to determine, but one thing is true, that many assuming the role of teacher, whether comprehensively or not, have not appreciated their true relation to the home, and in many instances have been a curse rather than a blessing to the child. They have taught, perhaps, the branches of an education, but have not led the way to a broader and higher life; they have imparted the forms of knowledge without the power.

The intellectual training is not all of the teacher's duty to the child; his relation is yet closer. Dr. Webster says: "The punishments for the faults and offenses of children by the parents is by virtue of the right of government with which the parent is invested by God himself." So following in the line of divine law, the right to punish the children for offenses while at school, is, by the common law, vested in the teacher, as the representative of the parent for the time being.

The first and paramount obligation of the teacher in his relation to the home, is to look after the health—the physical welfare of the children committed to his care. In a sound body alone can a sound mind exist. If the law—at least the law of health—demand cleanliness about the home, how much more imperative these sanitary regulations about the school-home, where the immortal mind to be trained must dwell and draw its nourishment from the body five hours each day and five days in each week. Cleanliness is next to Godliness, and mental growth is best attained when the atmosphere is charged with vital purity.

But more. The child comes from his home recreations—outdoor sports. These must be supplemented by indoor gymnastics and proper outdoor sports at school. Regular, systematic drill, recreation of some kind, should be a daily exercise in every well-directed school. These that a well developed muscle and a vigorous body shall be secured, looking to active, mental power. Horace Mann says: "At college I was taught the motion of the heavenly bodies, as if their keeping in their orbits depended upon my knowing them, while I was in profound ignorance of the laws of health of my own body. The rest of my life was, in consequence, one long battle of exhausted energies."

Having arranged for the physical culture of the pupils, the second demand of this relation is the intellectual training of the child, by regu-

lar class drill and in the adaptation of facts and truths evolved from these facts to the practical, every-day affairs of life. This intellectual training must be methodical, not the method that kills, but that method that puts things in the right place at the right time. Besides the knowledge to fit the boy and the girl of to-day for the man and the woman of to-morrow, there must of necessity be a systematic doing. The teacher who permits his pupils to do things in a lucky-go-easy sort of style, is culpable, and is thoughtlessly paving the way for future chaos in the battle of life, and will certainly disappoint the parent in his hopes for the success of his child.

A third, and in a sense, the highest duty of the teacher in relation to the home, is the moral culture of the sons and daughters of his patrons. The same moral atmosphere of the home must surround the child in the school; or should the home atmosphere be tainted by sin, prejudice, or the gangrene of strife or other corrupting influence, the teacher must apply his corrective panacea—a pure moral atmosphere, in which the native oxygen will consume all impurities and impart a freshness to life. Who but the teacher can so surely supplement the work of the parent, or correct the evils of home training, aye, even add to home work increased power in the direction of man-growth and woman-growth, and thus prepare it for active service that shall reflect honor upon the home of childhood. "What is worth doing is worth doing well," is a good maxim for the school-room; for if the foundation be not supplied with well-mixed mortar to keep the bricks in place as the building goes up, what must the superstructure be when said to be prepared for the practical indwelling of life, but a mass of brick, stone, mortar and wood, poorly put together by poor mechanics. serving, it may be, barely as a shelter from the storms of life, yet rendering no real enjoyments to its occupant.

Primarily, the teacher must ardently feel his position in this intimate relation which he sustains in his little kingdom, the school-room. He holds in his hand the electric wire that, by his touch, sends the current from the school-desk to the hearth-stone; he holds the power to soothe the troubled mother heart, to allay the evil forebodings of evil associations on the part of the child; to fill the parental heart with joy at the success of the child; aye, he stands even in the very foot-prints, as it were, of the parents in these homes represented by his pupils, and as truly as the parent should rear the future mothers and fathers, so truly must the teacher realize his obligations to do the same.

It rests with the teacher, therefore, to train the children coming from the home surroundings as a sacred trust committed to him by the parents. To fulfill this trust in a manner that the most good will come to the home, is the teachers imperative duty. How shall this be done? This is a question that every thoughtful, judicious teacher will seek to answer.

A battle-field is the very arena of system if victory is expected. The troops must be arranged in companies, regiments, brigades and divisions. The cavalry must have its proper position, the battery its most effective outlook and the infantry must mass the centre of the conflict, with a well trained power systematically developed and systematically applied. And even then the victory comes only under the direction of a skillful and determined leader.

If this strife between muscle and muscle be successful in proportion to the exact system manifest throughout all its maneuvers, how much more is exact system needed when the contest lies between mind and mind, and where the victory is transcendently greater in importance and where the influence of that victory will grow in power through the ceaseless cycles of eternity, long after matter with all its conflict shall have been consigned to dust?

Understanding the child nature as we should, a systematic and true order of the studies should be pursued and firmly insisted upon, modified by the skillful teacher to fit the needs of the pupils.

Pupils must also be taught system in the preparation of tasks, and care of tools and helps used. Attention to such things will prepare the fathers and mothers of the future to build neat and model homes, that in their turn shall establish others of like character, and this shall redound to the betterment of the public schools in their studies and permanent advance.

But there is still another element in this sacred relation of the teachers to the home that must not be overlooked; it is the aesthetic element in our make up. A love for the beautiful begets in the child cheerfulness and respectful bearing. The old slab benches and unpainted walls so often festooned with cobwebs are a thing of the past largely, and the more modern forms and furniture have supplanted them; the polished or papered walls are now ornamented with beautiful pictures and busts of the good and great men and women of the present age and of ages past, while an organ or a beautiful piano is found in many school-rooms, ready to respond to the touch of some of the pupils even now skilled in this finest of the fine arts. The teacher who makes the child's school-room surroundings beautiful and attractive, and scatters roses and other beautiful floral offerings about the school-buildings, promiscuously upon the green sward and under the generous shade trees, allys himself closely in sympathy with the young hearts of his charge, and through these heart-beats he reaches the hearts of the parents, always, thus completing the golden chain that binds the home to the school, especially in relation to the pivotal spirit, the good teacher. The children are brought into harmony with their happy surrounding and carry smiles instead of frowns back into the home. To the child coming from the bosom of a happy home, a smiling, cheerful teacher, amid such surroundings will add to its pleasure, assimilating the pleasure of home and school. To the child whose home may not be so attractive, such a greeting imparts joy and pictures little unexpected pleasures to the young life, adding brightness of spirit and good cheer and sending it, it may be, on a happy and prosperous career in life. Again, pupils should be kindly encouraged, and often, by the teacher—the weak may thus be strengthened, the strong made stronger. The cheerful, sympathetic teacher will have a kind word for every one; his school-room will become a home-like place, a busy hive of workers.

The good teacher will trust his pupils, and thus beget a confidence in the child, he will be courteous and respectful to the child, also, training the pupils to be gentlemanly or lady-like in their bearing. The successful teacher will acquaint himself with the dispositions and home-life of his pupils, best accomplished by visiting their homes. Such visits promote mutual friendship between parent and teacher, securing order in the school-room. Kindly feelings spring up, difficulties are easily adjusted. In visits to the homes, the teacher learns the parents' plans for their children, consults with them in reference to school methods and plans of work, and elicits the direct coöperation of the parents in his work. These visits often allay sore grievances, so often prejudices, and secures one of the very highest elements of the teachers' success in the school-room, obedience on the part of the pupils. No teacher who aims at success in his profession and expects to reach it, can afford to ignore the parent and his counsel in behalf of the children whom he so trustfully commits to that teacher's training. Then, in addition to teaching the things in the lesson simply, and the power of associating these things with outside matter or action, to expanding the mental faculties, opening up the world of beauty and liberalizing the child's views and ideas; to leading it out into a world of systematic arrangement, where "order is heaven's first law" and where he may learn the beauty of doing well, yet without overreaching his ability; in addition to all these so necessary, permit me again to refer by way of emphasis, to that most important duty of the teacher in his relation to the home—the moral training of the children leaving their homes to commit their destiny, may I not say, into his hands. This moral training is the plus quantity of their lives, character; the neglect of this training is the negative quantity, loss of character, degradation it may be, and final loss of soul.

Here the wise teacher must, in part, at least, supplement and enrich the moral training of the home. He must often take the son or daughter in the rough and by careful and persistent effort, polish until the pure diamond shall appear to brighten the home, the school and the lives of those with whom it may come in contact, touching other homes with a vitalizing influence of love, confidence and a healing sympathy for the trials and conflicts of life. Character is the crown and glory of life. Educate the intellect alone and in nine cases out of every ten the man becomes a rascal, the greater rascal because of the lack of moral growth. He has scaled the heights beyond the admonition of moral teaching: it cannot now reach him; the approaches to the heart are closed to moral influences, and his intellectual training now counts for strength to perfect his hellish plans, and execute them against his fellows without scruple. Thus the sacred precincts of home are invaded by debasing influences, blighting all future prospects of cheer and usefulness, and often, oh, so often, prostituting all these to ignominy and shame. Such a direful result can be prevented by a proper training of the moral faculties by the efficient teacher in the school room, working in harmony with the parent in the home. I cannot say that the teacher is wholly responsible for the immoralities of immoral men and women, but I dare to say that in proportion to his neglect to improve every opportunity for inculcating moral truth, stimulating moral growth in the child, in the same proportion will he be held accountable by the parent, by the civil tribunal, and finally, by the Higher Court, where the Great Teacher, who never makes a mistake, sits in judgment, and from Whose decision there is no appeal. It has been said by some one, in substance, that if angels ever visit our earth and hover over the gatherings of mortals, to behold their actions and consider their destiny, as affected by human instrumentality, it seems there could be no time so fraught with interest and so calculated to call for sympathy as when the young gather from the scattered homes in some rural district to receive an impress for weal or woe at the hand of the teacher who is pledged to guide them.

As teachers we must see to it that the labors in the home are in harmony with those in the school; that we have secured the whole-hearted sympathy of the parents in this great work of educating their children; and having gained the affections of the pupils, we should look after their conduct as scrupulously as we would that of a precious jewel of our own. We must urge our pupils to take a higher stand for truth and against falsehood, in whatever form it presents itself; in favor of virtue and against vice from its mischievous beginnings to its most alarming monstrosities. We are wont to remind one another that the preacher must practice what he preaches; as truly must the teacher practice what he teaches, and this both in the school room and outside of its sacred precincts. If he teaches candor and honesty he must not, by some covert act, inculcate deception which he imagines the pupils incapable of detecting. He must not instill the principles of temperance and chastity, and at the same time be intemperate himself, and spend his evenings narrating bawdy stories, that he dare not relate around the hearth-stone, in the bosom of his own family. He must not picture the delights of home and the home circle and spend the greater portion of his evenings at the theatre or club rooms. He must not harrangue his pupils about the heinous sin of gambling or betting, and then deal in options and bet on base ball or horse racing. Be not deceived; the child imitates.

No age in which the perception, the perfect discernment is so keen in proportion to the surroundings and advantages, as that of childhood. Hence the magnitude of the responsibilities resting upon the teacher into whose care and keeping is committed the very budding of life to shape, not only into the beautiful flower, but to foster and guard with tenderest care, until the fruitage appears, moulded into graceful forms to add to the comfort, the pleasure and the general welfare.

When a distinguished writer said, "God be thanked for the gift of mothers and school-masters," he expressed a common sentiment with us all. The sacred influences of home and childhood ever follow us in our

busy life; the consecrated recollections of a mother's love and confidence ever brighten our pathway. But the next place in the human heart is always reserved for the devoted teacher. Many a loving mother has pressed the hand of a faithful, self-denying, patient teacher, and called down the blessing of God upon him for having brought back a wayward son or daughter to the path of duty and rectitude.

Having finished the reading, the speaker continued as follows:

Now, in conclusion, I want to appeal to you farmers to see that due assistance is rendered to the educators of the State. You are educating yourselves, or ought to be, and you ought to assist your public servants in their efforts to make the country schools what they should be, what they must be and what they shall be, by the might of the power of the enlightened educational instinct of this great State of Illinois. You can assist by building good school-houses and keeping them in good condition, well repaired and properly painted, with the doors all duly hanging on their hinges, so that the aesthetic natures of our children may be justly cared for. But above all you can assist by seeing that only such teachers are employed as are fit to occupy the high position—by moral culture and right educational instincts adapted to the proper rearing of children and to see that this kind only are secured, even if it costs for each teacher from five to ten dollars more a month; for the time is coming and is already here when teachers are to be paid from twenty to fifty per cent. more than we used to pay them, because it is beginning to be realized that the best material can only be obtained by paying the best prices. And I want to say further that wherever a good woman is found teaching in the place of a man she ought to have the same pay as a man. (Applause.)

I wish not to hurt anybody's feelings, but I have often thought, looking on the fine stock on the farm, that equal care ought to be taken in the treatment of human beings. Let us relegate to a forgotten past that weatherbeaten, delapidated and shabby old school-house down by the creek, or on the dusty, shadeless hill-top and begin to teach boys and girls lessons in æsthetics and the beauties of life. That much we certainly can do, and see that the children are taught along such a line as must surely bring us by each touch of enlightened humanity closer to each other and closer also to God himself. (Loud Applause.)

The President: The Board of Directors have modified the program to the extent that instead of the discussion being postponed to the close of the session it is to follow immediately upon the address. So if any one has a remark to make or a question to ask on the address just delivered there is now an opportunity. The time allotted to discussion is limited to fifteen minutes.

On motion by Mr. A. G. Judd, of Dixon, discussion on the address by Mr. Inglis was waived.

The President: The next address was to have been by Professor Davenport of the State University. This however, being the beginning of his term he was detained, but will be here tomorrow. Meanwhile, Mr. Ogle has exchanged places with him, but not to disturb the symmetry of the program his address will be the last this evening. Next, therefore, now will be an address by Colonel Judy upon the question, "What is the State Board of Agriculture doing for the Illinois Farmer."

THE STATE FAIR.

W. H. Fulkerson, of Jerseyville: Mr. President, Colonel Judy not being able to attend to-night has penciled a few words which I am requested to read before the Institute. He says:



J. W. JUDY.

on to tell you that the State Fair, at last, has done traveling around on wheels like a show, ticketed to stop at various places by public license, just as farmers have ceased to use wooden plows and other crude utensils. If he could have attended he would have told you about times when county fairs first began, and a boy sowing seed would dig a hole in the ground with his toe and cover with his heel, and how that same boy, now grown to be a man, rides on a planter drawn by a spanking span of horses, planting the exact number of grains in each hill, exactly so deep and in straighter rows than could ever be done by hand. Colonel Judy would have told you not only how the farmers have been improving, but how their wives have found at the Fair labor-saving machines contrived by enterprising manufacturers for their use; and another advantage about the Fair, too apt to be overlooked, he would have told you about the social feature; how Fair Day is a day of recreation, when farmers all lay off to get acquainted with each other, and what they learn at the Fair they talk over afterwards with those that could not go, and that promotes sociability, and in that way the old folks get the benefit not only of the information acquired but of the cheerful talk about it.

With the rest of the Institute, Mr. President, I regret very much that Colonel Judy is not here to tell you of all these things, but he could not spare the time, and could only dash off hastily the few words I have read, for which I offer you his apology.

The President: The next address is by Mr. Goodrich, President State Horticultural Society, upon the subject, "What is the State Horticultural Society doing for the Illinois farmer?"

Mr. President, ladies and gentlemen. The State Board of Agriculture is doing much for the Illinois farmer in many ways. The Board, by a systematic arrangement, publish a premium list containing all of the important breeds and classes of horses, cattle, swine, sheep and poultry, together with all of the grains, grasses, vegetables, fruits and flowers, also all of the important machinery and the latest improved implements necessary for the cultivation of the different crops raised on the farm, which are so arranged on the fair grounds that the farmer with his wife and children can see and learn more at less cost by attending the fair one week than he would in a plodding way on his farm in a lifetime. For you must remember that the exhibits on the Illinois fair grounds are the very best of every kind produced in the State of Illinois or the adjoining states.

This is Colonel Judy's speech. There is a good deal in it. Had he been able to attend he would have gone

FRUITS.



T. C. GOODRICH.

able to attend the meetings. Thus a volume of horticultural knowledge is placed in the hands of thousands of men who make its teaching a guide to their work.

That the Society may be up with the times, it sends delegates to the meetings of other states, who return with reports of what they have seen and heard. And not infrequently, like the spies sent into the promised land, they return with the fruits of the region they have visited.

Our Society invites leading men of other states, men eminent in horticulture, to visit our meeting and give it the benefit of their observation and experience.

To the scientist we say, "give us thy thought." And when busy in laboratory, with microscope investigating bacteria, fungus, or larger foes, we eagerly lay hold upon the practical results, the benefits derived from the labor of his brain.

Four fruit exhibits are held, which are grand object lessons to all desiring information about varieties. Cash prizes are given, which draw out the best displays of their kind.

The Society has twelve experiment stations evenly distributed over the State, where new varieties of fruit are planted and cared for until they have fruited. Careful reports from these are printed in the volume.

In this way planters are advised of the merits and demerits of varieties without the loss of time or money necessary to their trial. Thus saving many hundreds of dollars a year to the planters of Illinois.

Few people realize the magnitude of the fruit interest of Illinois.

From one town the product of 2,000 acres of strawberries are shipped, besides an equal amount of other fruits.

Five other places ship 1,000 acres each of all kinds of fruit. One hundred towns average 100 acres each.

T. C. Goodrich, President of the State Horticultural Society: Mr. President, ladies and gentlemen, knowing that other great men besides myself were to appear before you to-night, I have tried to make my address very short, and whatever other faults and defects it may reveal, I hope it will be found at least to have the merit of brevity.

What is the State Horticultural Society doing for the farmer?

The Illinois State Horticultural Society holds a mass convention and exhibition of fruit every year. The meetings are open and free to all.

It assists three district societies to hold meetings and fruit shows in different parts of the State, making four meetings a year, and sometimes more.

These meetings are attended by hundreds of farmers and fruit men.

The proceedings of all these meetings are published in the annual volume issued by the State Society, and is read by hundreds who are un-

Four counties of the State have growing in orchard $3\frac{1}{2}$ million apple trees, valued at not less than \$4.00 each, or \$14,000,000.00. In the entire State, small fruit and grapes as much more.

Peaches, of which there are a vast amount, pears, plums and cherries will swell the total \$60,000,000 invested in fruit growing.

Sixty million dollars of tangible, taxable property!

Is not this interest great enough to have a medium by which information, facts and figures can be gathered, published and given out to its patrons?

That is the mission of the State Society. That is what it is doing. It is doing this and more.

It teaches home adornment, that our rural homes may become fit dwelling places for intelligent men and women. Encourages the ornamentation of streets, parks, school-house yards, and the silent cities of the dead.

This is what the Illinois State Horticultural Society is doing for the farmer.

We are disseminating knowledge of the planting of fruit and flowers, to the end that the hungry may be fed and the earth beautified.

The President: The subject is now open for discussion.

A voice: I would like to ask the speaker his opinion about the Snyder blackberry.

Mr. Goodrich: The Snyder blackberry, Mr. President, was introduced into the northern part of this State on account of its hardiness to resist the frost. In the southern part, where frost does not need to be taken into consideration, fruits you northerners choose for their hardiness we pay no attention to. We do not grow the blackberry down there, but prefer something that falls within another season. But in point of hardiness the blackberry stands at the head as a fruit for cold weather.

The same voice: Mr. President, I know very little on this subject myself, and therefore inquired for information. But a gentleman with whom I have spoken says he tried a variety called the Western Triumph, which he thought superior; and another gentleman who has tried them in Michigan recommends them as hardier than the Snyder and of better quality. I live in Coles county, and I have mentioned the subject in the hope that some one from the northern part of the State would come out with his experience.

Mr. Goodrich: Sometimes, Mr. President, some varieties are preferred only while talking about them. But all judgments are not alike.

Another voice: Mr. President, I would like to ask Professor Goodrich if it is not the fact that some fruits of the same general variety prove different in different localities, and then again if growers do not sometimes take a common variety and palm it off under a new name, to make what money they can out of the uninitiated? In the vegetable line I know this is done very often; is it not also true in fruits?

Mr. Goodrich: Yes sir. But, Mr. President, referring to the Snyder, I know of no synonym for it; it is called the Snyder and nothing else that I know of. Every day in the year, however, new varieties are advertised by unprincipled men, and that is why we are expending money in experimental work, that those who have no time for experiment themselves may be protected.

The same voice: My question, Mr. President, was suggested by a late experience with regard to seed potatoes. One of my neighbors bought a new variety this fall, for which he paid something high to the grower, and then he wanted to know of me if I had seen any like them. O, yes, I said, I have ten or fifteen acres just like them. What do you call them? said he. Well, said I, they pass for Early Ohios, though some call them Ohio Juniors. O, that is not what mine are, said he; they

have some other name. Now he had paid ten dollars a bushel for the seed, and he took some of them to our county fair and had them on exhibition under the new name he had bought with the potatoes; but the pointer I gave him set him to thinking, and he compared them with the Ohios on exhibition there, and concluded after all that his potatoes were the same, which he could have bought for less than a dollar a bushel. (Amusement.)

My idea, therefore, of the benefit of the State Agricultural College and of the State Horticultural Society and of the State Dairymen's Association is to have competent, honest men to sift all these matters down to a conclusion which the farmer can safely accept as correct. And, meanwhile, my advice to farmers is, let these seed stores and traveling nurserymen, &c., severely alone; or, if you deal with them, follow the instructions of the Experiment Station and use your common sense. And by all means do not swallow all these tree agents tell you.

A. F. Moore, of Polo: Mr. President, in northern Illinois it is estimated that ten thousand dollars in each county is squandered every year for worthless trees. We have heard of winters that kill the trees, but if they would only kill the tree peddlers, too, it would be all right. (Laughter).

The President: The next address will be by Mr. Stewart, of Kane county, upon the subject, "What is the State Dairymen's Association doing for the Illinois Farmer."

DAIRIES.



JOHN STEWART.

grass and drank stagnant water. Their housing was either a straw stack, or a shed made by putting a few posts in the ground and covering with straw or wild hay. At that time cows were usually selected for their good beef instead of for their milk qualities.

Any one who will make a trip with me now through Lake, DuPage, McHenry, Kane and DeKalb counties will be convinced of the vast improvement in the dairy business in the last few years, and doubtless it is the same in many counties which I have not seen.

John Stewart, President of the State Dairymen's Association: Mr. President, ladies and gentlemen of the Institute, (reading). You ask what the Illinois Dairymen's Association has done for the farmers of our State?

That there has been a decided improvement in the dairy business in Illinois during the past ten years, no one can doubt. The land has been improved by drainage, sloughs have been gotten rid of, good water secured, proper food prepared, buildings for the cattle built and better milk cows bred. But just what has been the means of bringing all this about is a more difficult question. The Dairy Association modestly claims that she has been one of the agencies.

Most of us older men remember how the dairy part of the farm was conducted thirty years ago, or less. All the land that was by nature in plowing condition was used for grain, and the sloughs were kept for the cow. The cows ate coarse, wild

The dairy business of the State has been chiefly confined to the northern counties. And thus we meet people from the southern part of the State who tell us that the Illinois Dairymen's Association does them no good, for they have little interest in dairying.

But they forget that they really do have an interest in dairying, for if our end of the State was not using the cow for milk we would be using her for beef, and so would come into competition with them. And though probably there are portions of the State which will never do much dairying, there is no part which can not and will not do some, and consequently they need to know all the improved methods of making milk.

Since the capital invested in the dairy business in Illinois is over \$300,000,000, nearly twice as much as that invested in all the incorporated business companies of the State combined, we think that a State Dairymen's Association, or any other organization to improve the quality of dairying, can not be out of place. Of course but few, compared with the number of dairy farmers, attend our meetings or read the reports; but every man who does attend talks the subjects over with his neighbor, and retails out to a large number the information he has received. Discussion is provoked, and a feeling of inquiry aroused upon many topics of interest and import to the dairymen.

At a meeting held in Elgin some twenty years ago, the President of the New York Dairy Association was there to tell what he knew, and he made the following statement: A great many dairymen are foreigners who do not get much information by reading, but get their new ideas by attending our meetings, or by talking with farmers who have.

Besides, many well-written articles in our agricultural papers are not fully understood by the farmer. Perhaps some little explanation is omitted which leaves the reader in the dark. But at the Association meetings, questions can be asked of the speakers and a full understanding gained.

We endeavor to secure for these meetings speakers who have had large experience in dairy matters, and who have made the subject a genuine study for years. Reports from the agricultural schools and experimental stations are brought to us, and experiences of practical farmers given. Questions are answered and much information exchanged.

There is a great deal yet to be learned before dairying is perfected. How shall we raise the most feed to make milk, and what is the best feed for the milk cow? Here the labor question enters in, for while we know that cooked feed makes the most milk, (4 bushels cooked grain being as good as a whole bushel raw) yet with cheap grain and dear labor the raw feed might be the cheapest. Ensilage and other feed are being tested and the results given to the farmers. Thus our Association benefits the State. Our present Governor stated to me last winter that he had taken pains to make inquiries regarding the work of the Dairymen's Association, and would help us to get our bill through the legislature for an appropriation to print our reports. He said that all the information for the benefit of the farmer ought to be published.

So you see the farmer gets a little flattery from our law makers, even if he does not always get the plums.

Now it would be easier to tell you what we have not done than what we have. And among things we have not done is to procure a law to prevent fraud in butter and cheese. We know butterine makers make an article to destroy our market. Butterine and oleomargarine are the same, and that is the article they make. But when you ask people from the southern part of the State to help get such a law, the answer is, Haven't they as much right to sell grease to make butterine as you have to sell cows to make butter? Very good. Perhaps that is so. But what is the result of that argument? The result is, you have raised your hogs to make lard until the hog has got tired and is beginning to die, and people who have been using your lard to make butterine with have got a cheaper substitute in cottonseed oil, an ingredient they can buy for a song, and your hogs have run down to three dollars a hundred, till hardly anybody wants to look a hog in the face.

I say, we dairymen have no protection. I am a republican myself, and believe somewhat in the doctrine of protection, not to build up the manufacturer, but to protect the farmer. I would like to see something done to protect products.

Beef is being shipped, they tell us, to all parts of Europe, but it is not all beef. For to-day thousands of horses, too, are being shipped, and not as horses, but as something else. I was over in Portland, where I read an article stating that a man in Idaho had sold a large number of horses at three dollars a head, and one or two of us went up to see where they were being slaughtered, and we saw nine hundred or a thousand there. They would use the hides and make fertilizers of the rest which was not packed for shipping. A few months ago I saw where parties had contracted to carry canned beef from Portland across the Atlantic; that seemed to show that Portland was exporting the article. But what was that article? Why, it was that horse meat I told you about. You say, "that is all right. If people want it, let them use it." Well, I have eaten horse meat myself, but I do not want to eat it when I can help it.

I say, we have no protection. I was over in London, and one of my friends went into the beef market, and passed through a building where he was shown a large number of cattle killed and shipped from Australia; likewise beef transported alive and killed after its arrival. But where was our beef?

I asked a man there, "Is there any American cheese in this market?" He said, "None." I asked what was the trouble. He said: "A few years ago there was plenty of it in our market, but your folks got too sharp and skimmed all the cream off, and to-day you could not give us an American cheese?"

That it is the way it goes.

It is true, other people have frauds as well as we. But go through London any day and you will see cases apparently filled with beautiful diamond jewels. Raise your eyes and you read, "These are made of paste," in great big letters. "This gold is not pure," you will read in another place. There you have some protection. You go to Paris, where they sell horse meat. I asked to be taken where I could see that. When I got there, I saw over the door a horse's head. You can get horse meat there, but not without that sign. Go from there to where the unspeakable Turk resides, and you can pass down where you will find a big picture of a camel over the door. That sort of food you can get if you want it, but you will know what you are buying.

Now I have told you this to ask you if you will not sometime agree with me that farmers need protection, not only for dairies, but also for whatever else they may have to sell. (Loud applause.)

The President: The matter is now open for discussion.

J. M. Thomson, of Joliet; Mr. President, I would like to ask Mr. Stewart if silo is being used among the dairymen of Illinois?

Mr. Stewart: Very largely, where I live, in Kane county.

A Voice: Mr. President, something ought to be done about what Mr. Stewart has suggested. The cheese market is already closed, and other markets may soon be closed in the same way. This State ought to have a law regulating these things. We have men here who have been in the legislature; we would like to hear from them.

Mr. Sibley, of Christian county: Mr. President, the State has much interest in dairying, and I am for protection. I want all these men who want oleomargarine to be protected. Very many of them want it, yet when you go to a boarding house table and call for oleomargarine, they give you butter. (Laughter.) I want these men to be protected. Now, a man that wants oleomargarine cannot get it; he has to take butter. (Loud laughter.)

A. G. Judd, of Dixon: Mr. President, I move that the Chair appoint a committee of three to draft a set of resolutions on this subject.

I think we ought to make such an expression that we can go home and work in the interest of pure food laws. I would not confine the movement to dairy products alone, but I would have a general pure food law. Let us go to the next legislature in shape to compel men to put themselves on record as to whether or not they will support that kind of a law, and then if we do not keep at home those who are found against it it will be our own fault.

A Voice: What we want, Mr. President, is to draw out an expression by the Institute in a shape to work on at our next legislature.

Dr. A. L. Converse, of Springfield: Mr. President, I have listened to the papers read to-night with a great deal of satisfaction. The first paper pertained to something we are all interested in, that is, the children of the State. It seems to me it is certainly appropriate the public funds should be used for taking care of the children and providing for their intellectual training. The next paper was on the subject of horticulture, an interest pertaining more particularly to the southern portion of the State, and I was perfectly astonished by the statistics furnished here as to the amount of fruit raised in Illinois. The next paper comes to us upon the subject of the dairy interests, which pertain more particularly to the northern part of the State. And here again we get figures at which I am perfectly astounded. So here we have horticulture at one end of the State and the dairies at the other, and both with figures of results that are completely overwhelming.

Now, Mr. President, I am not much of a protectionist, but I think I see why that idea here really seems to predominate. And it is curious to note that the larger the product of any particular kind, the more its friends seem to require at the hands of the public for its protection. Now, these two enterprises, one at each end of the State and both prosperous, are both here clamoring for public aid. In the first place they want money to publish their reports. Only a small sum, it is true, but there are other industries in which others are engaged—in one of them I am engaged myself—for which the State pays nothing, and I do not think it ought to. I see around me here two or three who have sat with me in the Legislature. For my part, I could not be brought to vote to foster one particular interest at the expense of all the rest, and as to publishing reports, I would rather gather them all up into one common appropriation for the benefit of agriculture. It seems to me these two interests are in an attitude to take care of themselves. The strong seem to be asking for help, while the weak struggle to stand alone.

Mr. Stewart: Mr. President, if these walls could speak I should certainly expect them to say that money defeated our attempt here last winter to prevent the sale on the market of fraudulent milk. We had a bill here to defend the people from this kind of fraud, and it would have gone through but for that kind of opposition. That is where the trouble lies.

The question recurring upon the motion to appoint a committee to draft resolutions on the subject, it was adopted.

The President thereupon appointed the following as such committee: A. G. Judd, of Dixon; John Stewart, of Kane county; and J. M. Thompson, of Joliet.

The President: The next address will be by Mr. Curtis, President Illinois Poultry Association, upon the subject, "What is the State Poultry Association Doing for the Illinois Farmer?"

POULTRY.

Grant M. Curtis, President of the State Poultry Association, delivered before the Institute an address replete with curious statistics and ingenious and instructive comments, quaintly and pleasantly expressed, but

failed to leave a manuscript with the Secretary, so there is nothing to publish but his oral remarks at the opening, copied from the notes of the stenographer, which are given merely as a hint to those not present of what they missed by not attending.

"Mr. President, ladies and gentlemen, I appear on behalf of the American Hen—an insignificant quantity taken by herself, but important enough when coupled with the raising of a mortgage or the paying of the national debt. And I am here to prove what I say. I had intended to prepare an elaborate address—one that this hall could hardly contain—but I am very busy with my private affairs and had not the time to spare. The question I am to talk to you about is, What the State Poultrymen's Association is doing for the Illinois farmer. I cannot answer that question without going around Robin Hood's barn, and I am going to make the journey. The first thing I want to impress on your minds is the importance of the poultry interests in the market. Very few realize the magnitude of this industry. I have here a few figures, taken from the government report of 1890, which I will read."

The address was then read, and followed by a concluding remark, as follows:

"I cannot add to what I have said in reply to the question, What we are doing for the Illinois farmer directly, but what we want to do and what we hope to do are pretty large problems. There is a splendid opportunity here for money-making—thousands of dollars to be picked up in the corners of the Illinois farm, now being wasted and overlooked. And when the State Farmers' Institute becomes thoroughly established, I hope it will include among the objects of its fostering care the poultry interest, and give it a chance to do what it can to better the condition of the farmer and increase the wealth of the State."

The President: The subject is now open for discussion.

M. W. Summers, of Curran, inquired as to the best kind of chickens for the farm.

Mr. Curran: There are many good kinds, Mr. President, but all things considered, the best is the American Plymouth Rock, a fowl that twenty years ago did not exist, but is the product of the poultry-fancier.

Mr. Summers: I have tried Plymouth Rocks myself.

Mr. Garrison: What we want to know, Mr. President, is how he manages about his hens. I have Plymouth Rocks at my place. I have a warm house for them, and I feed them wheat and corn and warm mash, but we do not get a hundred eggs to the hen a year. I would like the speaker to send me some advice. My name is Garrison.

Mr. Curtis: Mr. President, I have the honor to be the editor of a reliable poultry journal, which is only fifty cents a year. If the gentleman will take it for one year, he will get a complete answer to all his questions. (Amusement.)

Dr. Converse: Mr. President, I am willing to do almost anything to make hens lay. They have not been a success at our house, though I have built an excellent hen-house and spent a hundred dollars on it. I built poultry-boxes and gave my boy all the literature I could find to instruct him on the subject, but it seemed to do no good. And I made some investigation—the boy had found some fault—and I found out something that this gentleman has not touched upon, that is the proportion of fowls that should be kept, and how kept. And going out, I took account, and found he had a dozen chickens altogether, which consisted of eight roosters and four hens. (Loud laughter and continued merriment.) He did not touch upon that point at all, and if he had not been so particular about his thoroughbreds it might have occurred to him. There is such a thing as a man being too particular about his chickens. (Laughter.)

But after all, in all seriousness, I am often very much surprised to see how these figures will come out. I have been rich half-a-dozen times in my life, and it was always done by figuring on chickens; but as soon as I quit figuring I got poor again. It does beat all how some folks make chickens lay, but we can't do it at our house. (Laughter.)

Mr. Garrison: Mr. President, I am a regular subscriber to *The Farmers' Review*, which I have been in the habit of recognizing as first-class, and do yet. I am of a sort of opinion that I get about as much information from that journal as I could from any other, unless the gentleman has some extra feed. (Amusement.)

Mr. Curtis: Mr. President, we have had a little fun out of this subject, but I may say that poultry is like anything else. A man can make it pay in proportion to the amount of brains he puts into it and his industry. I tried to raise fruit, but I did not succeed in that; I never had the time to make horticulture a study. My wife undertook to have a flower-garden for about four weeks, until the weeds got the start of her husband. But poultry can be made to accomplish wonders in the same way that common hogs and cows and wild flowers are improved by cultivation. It is simply a matter of brains, and that is what we are here for. (Applause.)

At this point a motion made by Mr. Garrison to adjourn, on being put to vote, was lost.

The President: The last address this evening will be delivered by Mr. Ogle, on the subject of "Taxation of Farm Property."

TAXES.

A. B. Ogle, of Belleville: Mr. President, it is with regret unfeigned the necessity is forced upon me to conclude that in the assessments and returns on property from some portions of our State the element of fraud seems to have entered, the same as in other lines, so far as can be judged from our reports.

The President: The next order of business is the address on "Taxation of Farm Property," by Hon. A. B. Ogle, of Belleville.

TAXATION OF FARM PROPERTY.

Mr. Ogle: Mr. President and ladies and gentlemen of the Illinois Farmers' Institute, the preparation of a paper on this topic that shall get right down to bottom facts, requires an exhaustive research and much more time than I have been able to devote to it. Definite conclusions can only be drawn from a thorough knowledge of a mass of details concerning the earning capacity of different classes of investments that must bear the burden of taxation, and by comparisons of these details in such a manner as to indicate what proportion of the public revenues each should bear. This fact determined, the instances of over-taxation and under-taxation could be easily ascertained from the official reports, and the matter of rectifying wrongs that have, perhaps, unconsciously crept into our methods of raising revenues for public purposes would reduce itself to the three elements of determining to act, clerical accuracy and honesty of purpose. Hence, though the subject in hand is full of interest, and the temptation is strong to go into the entire matter of the assessment and equalization of the assessed value of property in this State, the limitations of time on the present occasion, and the lack of a thorough knowledge of the subject, will, I hope, be deemed a sufficient excuse for my not doing so. A few facts and figures given in a desultory manner must suffice for the present instance, with the hope that they will stimulate thought in the minds of my auditors on this important matter of taxation of farm property in particular, and the question of taxation in general.

On an average the assessments of farm property are perhaps the most nearly correct of the assessments on any class of man's assets. True, some hidden motive may at times tempt an assessor to undervalue or overvalue certain pieces of property, but on the whole these officers aim to be honest in their valuations of property, and their judgment on land values in their respective districts is not far wrong. The same may be said of their estimate of the value of grain, live stock and agricultural machinery, with all of which kinds of farm property they are familiar. Farm property is tangible property, as a rule, in that it cannot be hidden from the eye of the assessor, and would seldom be secreted if it could by the sturdy yeomanry of our land, among whom is found the highest average of morality and honesty of any class of our common people.

Let us look for a short time to that great metropolis and center of wealth and commerce on Lake Michigan, and the collection of suburban towns and farm lands surrounding it, collectively known as Cook county, for a few examples of assessments that will do to frame and place on exhibition throughout the State as veritable freaks in their way. Taking the report of the State Board of Equalization for 1895, we find that Cook county's assessors last year found only 34,392 horses, valued at \$441,593; 30,209 cattle, valued at \$201,796; 7,788 hogs, valued at \$11,059; 1,134 sheep, valued at \$967, and 213 mules and asses, valued at \$2,948, within the limits of their jurisdiction. Think of these returns from a county containing a population of not far from 2,000,000 and the location of stock yards that in the magnitude of their operations are deserving to rank with the famed Seven Wonders of the World! Against Cook county's 34,000 horses in round numbers, LaSalle reports 28,000, Livingston 27,000, Iroquois 26,000, and Little Putnam, the smallest county in the State, comes forward with 3,608, or more than one-tenth the number in Cook. Against big Cook county's 30,209 cattle, little Putnam reported 5,059, or more than one-fifth as many; against Cook county's 7,788 hogs, little Putnam returned 6,565; against her 1,134 sheep, Putnam returned 2,126, or nearly twice as many; and against Cook county's 213 mules and asses, Williamson returned 2,585; White, 2,874; Madison, 2,904, and St. Clair, the home of the writer, proudly takes her place in the van of the procession by returning 4,269 head of these much maligned beasts of burden, the largest number in any county in the State. From these returns it would seem that business must have been dull at the stock yards, and that horses and mules must have been almost superseded by improved methods of conveying vehicles and tilling the soil when the assessors were performing their duties in Cook county in 1895.

Let us carry the matter a little further. Cook county's machinery in all lines of production and distribution was run by only 566 engines, including boilers, valued at \$71,242. St. Clair county, next in the list, returned 375 engines, worth \$47,201. As St. Clair county has only about 70,000 inhabitants and Cook county 2,000,000, there must either be a shocking waste in the management of St. Clair county engines, or Cook county's engineers have some magic method of conserving the force of theirs that lays the hidden secret of the Keely motor completely in the shade. Cook county had only 481 fire and burglar proof safes, 217 billiard and pigeon-hole tables, 23,325 carriages and wagons, 4,326 sewing and knitting machines, 11,679 pianos, 537 melodeons and organs, 3 franchises, 1 annuity and royalty, valued at \$322; 1 patent right, valued at \$349, and 240 steamboats, sailing vessels and boats of all kinds, valued at \$66,619. In 1894 her assessors reported 7,597 watches and clocks, valued at \$28,721; in 1895 only 6,342 watches and clocks, valued at \$19,865. Poor old Cook county! Poor old Chicago! How in the face of such figures as these can we conclude otherwise than that our great commercial center is on the crumbling verge of bankruptcy, and is tottering downward toward the vortex of financial ruin?

One more illustration and I am done. I propose to go back to the assessment of 1894 and take up the items of moneys and credits, my reason for so doing lying in the fact that the Auditor's report for 1894, from which I have obtained some of my figures, is the latest one I have

at hand. In 1894 Cook county returned moneys of bank, banker, broker, etc., \$43,925; credits of bank, banker, broker, etc., \$10,000; total, \$53,925, against \$140,096 in Sangamon, \$158,955 in Rock Island, \$187,650 in Will, \$291,291 in Winnebago, and \$313,454 in Peoria county.

In moneys and credits of other than bank, banker and broker, Cook county returned \$956,354, against \$424,172 in Knox, \$459,725 in Kane, \$498,613 in Madison, \$573,456 in Henry, \$615,711 in St. Clair, \$653,944 in McLean, and \$705,399 in Winnebago county. In credits alone of persons other than bank, banker and broker Cook county returned \$522,110. Winnebago and St. Clair counties both exceeded this return, the assessments being \$602,353 and \$562,889 respectively.

The total assessment of all moneys and credits in the hands of every bank, banker, broker, firm and private citizen in Cook county in 1894 was \$1,010,279. August 8, 1894, the banks and trust companies reported as on hand when they opened their doors for business, in moneys and four items of credit, \$60,652,694.71, whereas about three months before they had returned an assessed valuation of \$53,925—an increase from an assessable value of \$53,925 to an actual value of \$60,652,694.71 inside of ninety days. The wildest dreams of avarice, the fabled hidden recesses of the Arabian Knights, filled with priceless gems of rarest lustre, the golden luck of the bonanza kings, all sink into insignificance in comparison with this astounding instance of financial gain.

All honest men desire honest taxation. In the face of the illustrations given, every one of which were taken from official reports, can this body say that we have it? Do not our official reports prove conclusively that much of the wealth of this State is escaping taxation year after year? I hold that they do, and whenever one class of property is relieved of its just measure of the public burdens, other classes not so favored must make up the deficit. If the people of this State did no more than to make Cook county furnish her just share of the public revenues, the taxes on lands and other farm property would be considerably less than they now are. Take for instance the assessed value of all moneys and credits last year of \$1,010,279 and the report of the banks within ninety days after the assessment was made, showing \$60,652,694.71 on hand. It seems fair to suppose that if there was \$60,000,000 in the hands of the Chicago banks and trust companies August 8, 1894, there was an equal amount in the hands of all the banks, trust companies, firms, corporations and individual citizens of Cook county when the assessment was made three months before. Taking one-fourth of this as the value for taxation and the result would be \$15,000,000 for taxation instead of \$1,010,279 as returned by the assessors. This alone is more than half the total personal property valuation returned by Cook county in 1894, the figures being \$28,783,994. It would add \$14,910,603.92 to the taxable property of the State, an amount greater than the total equalized value of property in any county of the State except Cook and McLean.

The taxation of farm property is thus seen to bear an intimate relation to the taxation of all other kinds of property. As our present assessments of property are made, there seems no room to question that many forms of wealth escape taxation to a large degree, and as other forms must make up what they escape, the conclusion is irresistible that farm property is paying more than its equitable share of our taxes. In matters of public revenue, as well as other things, the motto of the owner of farm property should be, eternal vigilance is the price of just taxation. More than this he should not ask; less than this he should not accept.

The President: The committee appointed to draft resolutions on the subject of food will now report.

Mr. Judd read the following resolutions, which were adopted:

We, as members of the State Farmers' Institute, realizing that nearly every market in our country is being flooded by adulterated or bogus products, thus injuring or destroying the markets of various farm products, and

WHEREAS, We realize that it is within the power of our State Legislature to pass laws which shall suppress the manufacture and sale, within its limits, of such products; and

WHEREAS, Such bills will be introduced during the next session of said legislature, we, as members of the State Farmers' Institute, now in session in the city of Springfield, Illinois, desire to place ourselves on record as pledging ourselves individually to work in our districts to elect only such senators and representatives as will place themselves on record to support said "Pure Food Bills."

A. G. JUDD, *Chairman*.
J. M. THOMPSON,
JOHN STEWART.

The Institute then adjourned to 1:30 P. M. to-morrow.

SENATE CHAMBER, STATE HOUSE,
SPRINGFIELD, WEDNESDAY, 1:30 P. M., January 8, 1896.

The Institute met pursuant to adjournment, President F. M. Palmer in the chair.

The President: The Illinois Farmers' Institute will please come to order. The meeting will be opened with prayer by Rev. W. N. McElroy, Presiding Elder Springfield District Methodist Episcopal Church.

Dr. McElroy then offered the following prayer:

PRAYER.

Almighty God, our Heavenly Father, we acknowledge Thee as supreme, the Ruler of all worlds, the Author of all life, the Source of all blessing. We acknowledge the obligations we owe to Thee for Thy wonderful gifts to us. We thank Thee that Thou hast bestowed upon us so many blessings, so rich, so free and so full; blessings temporal and blessings spiritual. We thank Thee that Thou hast given us this goodly land. Our lots have been cast in pleasant places; yea, we have a goodly heritage. The clouds drop fatness upon our fields, our soils produce rich harvests of grain and fruits, and our pastures are filled with flocks and herds. These are Thy gifts. Thou hast bestowed upon us not only those forces that produce these things, but Thou hast created us and placed us in this world and given to man dominion over the earth, the beasts of the fields, the fowls of the air and the fishes of the sea. We thank Thee that Thou hast implanted a desire in the human heart for excellence, and men are seeking everywhere to produce the best, to gain the best results in grain, in fruits, in stock, in all things to which they put their hands in the work of effort and of toil and of product everywhere. And now we pray that Thy blessing may be upon this Institute, and upon the State, and upon the agricultural interests of the State and all interests that pertain thereto and are related to them. And we pray, Heavenly Father, while we seek to produce the best of fruits and of fowls and cattle and horses and of all animals, we may not forget the highest and best product of any land is its people, its men and women, with cultivated minds and strength and health and vigor, with broad views, with tender hearts, and above all honoring integrity and uprightness and justice among men.

Lord, hear us in these things, and remember us for Thy Name's sake. Amen.

The President: The first order of business is the address of Hon. J. H. Pickrell, Secretary of the American Shorthorn Breeders Association, on the "Outlook for the Cattle Breeders of Illinois."

J. H. Pickrell, of Springfield: Mr. President, ladies and gentlemen, I hardly know why I was connected with this topic, and I am afraid, after I get through with my paper, you will be in the same fix that I am.

The following address was then read:

OUTLOOK FOR THE CATTLE BREEDERS OF ILLINOIS.



J. H. PICKRELL.

stock, commencing in the central part of the State, and thereby increasing greatly the beef production. Even then, beef that could walk to market was thought to be all that there ever would be of it, as there were no railroads to transport it to market.

Stock that was bred to make good oxen was in demand, as the prairie sod was to be broken, and it was too tough for the small horses that were then in use to make much headway.

To better illustrate the use of oxen for this purpose, I will relate an anecdote that used to be told of how the late William F. Montgomery, of Macon county, appeased the sorrow of his wife, at the loss by death of one of his work horses; for he, like most of the early settlers, came to Illinois poor, but by his philosophic mind he managed not only to always keep in a good humor but to become one of the well-to-do farmers of the county. One morning he went out to feed his horses, and found one of them dead. He knew his wife would be terribly distressed, and he put his wits to work to know how to relieve her. So he went into the shanty where she was preparing breakfast and took down his fiddle (we call them violins now), and after tuning up and playing some lively tunes he said to his wife that one of the horses was dead (naming the one), and said that he was glad of it. His wife's exclamation was: "William, are you crazy? Here we are, out on this prairie, and no chance to raise a crop till this old tough sod is broken, and now you say you are glad the horse is dead. What do you mean?" "Well," said he, "I can trade the other horse for a yoke of oxen" (one horse for a yoke of oxen was generally the price then) "and the oxen can break more sod than the pair of horses, and they can run out nights and get their living and we can save the expense of buying feed for the horses"—which, by the way, was true.

But as soon as the prairies were broken and railroads in operation the demand for oxen ceased in Illinois, though, perhaps, not in other states, as Col. L. F. Ross used to tell a good story of an eastern gentleman who visited him. Colonel Ross took him out to show him his heavy draft horses, which he took great pride in himself, but he failed to impress him with his own enthusiasm. After looking at the horses, he took him

It is an old adage that if our fore-sights were as good as our hind-sights we could get along much better. So we may, perhaps, get a more profitable outlook for the future of Illinois cattle-breeding by taking a glance at the past, and then examine things a little as we find them at the present time.

In the first settling of the State it was thought that prairies would never be farmed, but would be kept open for an everlasting grazing ground for stock. So we find that the old settlers located near the timber and that they fenced in their fields and allowed their cattle to roam at large. Their "outlook" was all *out-of-doors*, and but few men cared to invest in good male animals for the benefit of their neighbors as much as for themselves; and, as a consequence, the scrub reigned supreme, in most parts of the State. A little later, some of the more liberal and enlightened breeders introduced better and more improved

to see his Devon cattle, and then, he said, the stranger at once enthused, and remarked that the colonel was all right now, because if he wanted to go to town he could yoke up a pair of oxen and go, but he had his doubts about those big horses.

But times changed as the second set of farmers came and settled—not next to the timber, but next to those who did. They had to pay big prices for timber land that had been gobbled up by the first settlers, and they had to haul their fencing material too far to make them feel comfortable. It was not till then that they found that their fields were not so likely to stray away as were their cattle, and that they could fence in a few animals much better than they could fence them out. So the conclusion was soon forced upon them that of the two, it would be more economical to fence in the stock, and the change came as soon as enough prairie farmers settled in a neighborhood to out-vote the old settlers, who were terribly opposed to it. Even the town people opposed it, as it deprived them of the privilege of allowing their cows to steal a living out of the wagons of the farmers, who went to town on Saturdays generally. “Hoop-pole-township fellows” was the appellation the prairie farmers received from the opposition, because, I might add, the crusade was first commenced against letting swine run at large, and two or three boards, or poles, were used for the fence; hence the appropriateness of the appellation. So, instead of the hogs following the cattle, as would be the natural order of things, it was the reverse.

As a result of keeping up the cattle, came a greater demand for a better class of stock which did not have to walk to market, as railroads had multiplied, and other cattle products besides beef were in demand, so dairy products were found profitable, and dairy herds were introduced, thereby widening the scope.

But what of the present? We find that the very cause referred to as widening the demand for the different kinds of cattle, has in many instances deteriorated their value in the State, simply from the fact that many farmers and cattle raisers did not have a fixed ideal, or type, to govern their selections of breeding animals, breeding to one kind awhile, and then to another, till as a result, on many farms we find a nondescript class of stock, which, in most instances, presents no improvement, either in beef or dairy qualities, but have instead, according to the extent to which they have been crossed, deteriorated in both. And so we find the cattle to-day.

But what of the conditions of the trade as we now find them?

In the first place, the laws that should in reason control “supply and demand” are abrogated by the combines of the “big four” and others, who, to a great extent, make both sides of the bargain—by their big refrigerators and ice they *freeze* them out.

In the second place, canned beef—not to mention horse flesh—is being put up for home and foreign use.

In the third place, these cans are filled with the flesh of poor, cheap and inferior animals that can only be bred and reared profitably on cheap lands and poor feed, and while, to a certain extent, they compete with good animals, because many people are like the donkey that eat the thistles, “anything to fill up,” so the meat is eaten. But Illinois, with the price that her land now commands, need not and cannot afford to produce that class of cattle. It won’t pay, and her breeders can well afford to give them the “go-by,” excepting those that may be sold from the strictly dairy breeds, after they have run their course at the pail.

In the fourth place, we find that the price of “good to extra” is now, and has been, whether the market is high or low, from one and a half to two and a half cents per pound higher than those that are classed as “common to fair,” to say nothing of the lower grades. So that in order that the outlook shall be bright, none but the better class should be produced.

To sum up, we find the present conditions are entirely different from what they were in times past, and that the outlook for Illinois cattle trade, if it would give promise of profitable culture, should be changed and divided into two general classes. One primarily for dairy products, with beef in the far off, from even the secondary object. This class should be bred to itself and not outcrossed with the beef breeds at all, as it should be kept for use only on dairy farms and for city folks who indulge in such necessary luxuries.

The other class should be for the general farmer, with beef as the primary, and dairy as the secondary, object. That is, the steers should be of the best of beef animals, and the cows should be good milkers and butter makers, so that the family should have no cause for recourse to *strictly* dairy animals for home use, or for supplying city customers with a large amount of good flavored milk. These qualities can be bred, cultivated and maintained in the "general purpose" breed.

The larger farmers, of course, need not cultivate the milking qualities to so great an extent as the smaller ones, but should, nevertheless, use a breed can do both—cows that cannot only give a large lot of good milk from which butter and cheese can be made, but can give their calves such a start that they will fatten and mature at an early age, and at last, when they are no longer needed on the farm, they, too, can give a good account of themselves when sold for beef, which need not, on account of its quality, go into cans.

Early maturity is one of the essential qualities for the good outlook for Illinois cattle, and the farmer and cattle raiser must cultivate such tendencies. Otherwise, they will "eat their heads off" before being marketed, for it must be remembered that it costs less feed, and consequently less money, to make the first 1,000 pounds than it does the second 500 pounds. That is, a good calf can be made to weigh 1,000 pounds at twelve months of age at less cost than it can to add 500 pounds at the end of twenty to twenty-four months, and the longer it is kept, the greater the cost in proportion to the gain.

There is no use in taking much time or using much space in this paper to say that any Illinois farmer who breeds cattle belonging to either of the classes indicated, must breed the *best*. Our land is too high in value to compete with the low-priced land and feed of the west and raise cattle to compete only with canners, if he wants a bright "outlook" for the future. At the present prices of pure bred stock, he should commence at once, for in low-priced times, only the best can be profitably raised at all. And in high-priced times they will still lead. Besides, it takes less to feed a good one than a bad one, taking more feed to make the same amount of dairy products when fed to a second or third rate animal, than it does to a first-class one. When these suggestions are not accepted and practiced, the outlook for Illinois farmers will be on the "other side." The location of the State is such that cattle must from necessity always be one of the leading products—the central and more southern for the general purpose sort, and the more northern for the dairy; Chicago being the leading beef center of the world, and Elgin—both Illinois cities—being much the same in importance for dairy products.

If dairymen will dump all their poor milkers into the cans, and then procure and breed none but the best for dairy purposes, and the general farmers and cattle raisers will take the same course, and breed and raise a class of cattle, so that if they do not always bring the "top of the market," that they will, at any rate, be classed as "good to extra," the price at which land is now held, which by the way does not compare with the price in older countries, such as England, for instance, that always breeds and feeds so many cattle profitably, will not prevent cattle raising, and feeding being profitable in Illinois, with her vast corn products, a large portion of which can be best marketed in that way, for the outlook for Illinois cattle, the price of that commodity has much to do with it, for it is not only a *warmer* for winter but a *sweetener* for sum-

mer. If it is not fed to stock, it will throw more on the general market, and it will still decrease in price below what it is now. And whiskey,—well, it will go down I suppose.

When the temperance question first began to agitate the people of the State, I once heard of a lecturer entering a little town that had a saloon (grocery it was called then) and when announcement was made of his lecture, the saloon keeper was much disturbed, claiming that the lecturer would be trampling upon his rights, and he put his wits to work to know how to offset it. As there was a "hanger on" around, who had spent all his means for liquor, and was willing to undertake to do any desperate act for the sake of getting more, it was not hard for the whiskey seller to enlist him in the plan for disturbing the lecturer. So upon the promise of a dram or two he agreed to do what he could to prevent the lecture. When the time came, he was on hand, got his drinks, in fact he overdid it, so that when he mounted the platform of the speaker, instead of the interruption he fell asleep. In the discussion of the question, the lecturer said that some of the farmers wanted to know if the distilleries stopped, what they would do with their corn. Just at this point the drunkard awakened and yelled out, "Feed it to the cattle, you old fool you," and dropped off to sleep again. His answer is good yet.

Fall calves can be weaned in the spring and go "to grass" and be fed the next winter, and then finished on grass the succeeding year, and be ready at eighteen to twenty-four months for the shambles—weighing from fourteen hundred to sixteen hundred pounds—getting the advantage of any good market that might come along, after eighteen months of age. Another advantage of fall calves is, that the dams can be dried up in time to fully recuperate on grass before winter sets in, while those that calve in the spring are generally milked down, thin in condition in the fall, and go into winter quarters poor and never recuperate before calving again.

Spring calves should have the advantage of the second year's grass, and be marketed in the fall, after they are from fifteen to eighteen months of age, weighing from twelve hundred to fifteen hundred pounds.

Another thing in favor of the outlook for Illinois cattle, is that the great west is disappearing, because it is being settled up so that the big ranches where the cattle grazed on "free grass," are being encroached upon by settlers, so that they are not competing with us, as they did a few years ago.

Messrs. Ingwersen Bros. & Smith, of the Union Stock Yards, Chicago, have lately sent out a statement, giving the average weight and price of cattle for four different persons for whom they have sold them, as follows:

2033	head,	average	weight	1455	pounds,	average	price	\$5.50
1478	"	"	"	1448½	"	"	"	5.22
1576	"	"	"	1359	"	"	"	4.89
1149	"	"	"	1404	"	"	"	5.19

This is since January 1, 1874, twenty-two years. The ages of the cattle are not given, but I think we can agree with them that "cattle feeding will pay in the long run, if done in the proper manner."

If the states of things that have been hinted at, are brought about, I see no reason why the outlook is not bright, but if the other horn, whether it is short or long, of the dilemma is taken, it will be *foggy* enough.

There is no excuse at the present price of pure bred stock for the breeders to defer the improvement indicated. I will suggest, at any rate, that they make a note thereof, and then, do as they please, of course.

The President: The next address is that of Hon. T. J. Berry, the well known dealer in horses at the Union Stock Yards, Chicago, Ill. Mr. Berry not being able to attend this meeting his paper will be read by our Secretary.

Col. Charles F. Mills read the address as follows:

THE FUTURE OF THE AMERICAN HORSE.



T. J. BERRY.

was no market for horses, and if any were sold for cash, which was seldom, it was at equally low or lower prices than those of 1895. Parties having horses to sell did not know where to sell them and usually had to trade them for different kinds of property or get rid of them any way they could, as it was a hard matter to find a buyer at any price, but the war created a demand for them and they brought very good prices until 1875. After that all values took a tumble and horses went down with everything else.

In 1873 I had a few orders to buy horses by the car-load for the woods for logging and I bought the heaviest I could find. They were heavy draft horses and the price I paid was from \$40 to \$80, but there was no market and little demand anywhere. Parties having horses to dispose of did not know where they could sell them, and were obliged to keep them until they could trade them off or find some one to buy them off at a very low price. Prices were then lower than those of the present day. This state of things lasted for quite a number of years.

About the years 1877, 1878 and 1879, horses had recovered in value so they brought fair prices. As everything else advanced in value, so with horses, and they brought good prices and remained high until 1893. Since 1893, when low prices began to prevail. I have received a great many inquiries asking why horses were so low, why they were selling so cheaply and if it was caused by over-production. Most assuredly I can say no, over-production was not the cause. Had business continued good then there would have been a demand for more horses than have been produced. Low prices were caused by the panic of 1893, which was brought about by the scare that paralyzed our business throughout the land; but during all the low prices of 1893, 1894 and 1895, there has been a market, horses selling readily, though at unsatisfactory prices. All classes of trade were demoralized. Business men were afraid to extend their business, capitalists were afraid to loan money, not knowing what the results of the tariff question would be; manufactures closed, labor was thrown out of employment and money that heretofore had been in

This is the great question that interests farmers and breeders of horses, as well as dealers throughout our great country at the present time, and as this is one of the leading industries of this great country it is one of the most important subjects that we can discuss, and at this very critical time it should be handled by men of great experience and judgment. I have seen a great many ups and down since I have been in the business as a breeder, trainer and driver, and as I have been not only a publisher, but a great reader of the turf journals, and have been actively engaged in the sale business of all kinds of horses continually for forty years, it affords me great pleasure to give farmers and horsemen the benefit of my long experience.

I have seen the horse business come and go at least three times within that period. From 1857 to the time the war broke out there

circulation was locked up in the banks. The wheels of commerce were blocked throughout the country, and with this state of things the demand for horses was reduced to nearly one-half while the supply was the same as before, and as the supply and demand govern all values, horses began to go down until they brought only 35 or 40 per cent. of their value. Judging from past experience we have passed the bottom prices and have reached the turn which shows improvement and never again will this generation see horses sell as low as they have during the past year, and from the beginning of the year 1896 we will see a gradual improvement in prices.

Prior to 1893, Canadian horses paid a minimum duty of \$30.00 per head, which excluded them from our markets, while under the present law, they enter under a low valuation: \$40.00 buying a good horse in Canada and on a 20 per cent. duty, they enter our eastern markets on a duty of \$8.00 per head. Under this low duty, New England markets are largely supplied with Canadian horses. A return to the old law will exclude Canadian horses and leave the eastern markets to be supplied by our own products, which will increase the demand and give the western farmer the benefit.

All of this is sure to come within the next three years, and I wish to say right here there never was a better time to commence breeding horses than the present. This is the time when the right kind of breeding stock can be purchased for a very little money, and before you can breed your horses and raise them for the market every good market horse of the right type will bring as much money as he ever brought. It is true that the time for pedigrees without individuality or merit in the animal has gone by. Water will find its level, and the experience of the past few years has been a great educator to the people, and especially to farmers and breeders of horses, as every farmer and breeder will breed on a different scale. It used to be that extreme speed was the object regardless of the quality and individuality, but from this on it will be different. It will be quality, action, size and color; then comes speed and breeding, and when you have the individuality, action, size and quality, then the more speed and breeding the better.

In the first place, every horse should be bred for a purpose. There are but two kinds of horses advisable for farmers to breed. First, the highest class light harness, with size, shape and action and the more speed and breeding the better; but be sure to first get individuals with size, shape, quality, action and color, bay being the most salable. A light-harness horse when matured at the smallest should be not less than 15½ hands and weigh 1,100 pounds; from this size up to 16½ hands, weighing 1,300 pounds, while a 15½ or 16-hand horse, to weigh 1,150 to 1,250 pounds, is the best and most salable-sized horse that can be bred. They will be more salable, more sought for and are adapted to more uses than any other size that a farmer can breed, and as like begets like in providing yourself with breeding stock you should make no mistake, but get stallions and mares that can come as near producing the above kinds as possible. Be sure they have knee action and color and all the speed and breeding you can possibly get, and from the more speed-producing lines the better. The Hambletonian-bred stock is preferred, and in my opinion the Wilkes family is the breeding that should be selected to produce all light-harness stock.

We should select horses that will produce size, as a small horse is of but little value. The grade is raised every year; each successive year the demand is for larger horses, and while a small horse of 15 hands was formerly in demand, that size is now of very little value unless they possess extreme speed. In breeding horses you will get so very few that are fast that it is useless to make speed a main object. Breed from the best-bred animals that you can afford to buy and let individuality, size, action, quality and color be the leading objects, and then you are sure to get some speed, and the more speed you get the more valuable your horse will be when matured. The day of pedigrees alone has passed, but when you have an individual that shows a good gait then the speed and

breeding makes him all the more valuable. Notwithstanding all the horses that have been bred for the last few years, let a man go out desiring to buy a nice road horse or a nice coach or carriage team with all the qualities that make up this class of horse, and he may travel through the very best horse-raising section of this country, and how many could he find in one month's travel? My experience is that he would find but very few that would be first-class. Now, this being the case, there is something wrong. Breeders and farmers have not bred to produce the most useful and salable kind of horses, but have bred without any special purpose except it might be for speed. The most valuable horses—those that bring the best prices—they have not bred. They have not given this subject the attention it deserves; and here is where breeding strictly for a certain purpose comes in.

Now, our most successful business men are men who read and think and make calculations on what they want to produce and what the result will be. For instance, a farmer, if he be successful, will say to himself, "What can I produce that will bring me the best returns?" and if he is a well-regulated farmer he will try to get the best breeds of stock—something that will bring him the best returns when they go to market. Now, let him be as careful to study the class of horses he shall produce to bring him the best returns as he is in breeds of cattle, sheep and swine, and I am sure if he will do so he will get good returns, for from this time on the best class of horses are the kind to breed. Many farmers throughout the country have stopped breeding and sold their mares; this will bring a large shortage, and especially so of the good kinds of horses, for before he can breed the horses and get them ready for the market these good kinds for light harness will be in great demand and will be as valuable as they ever were, and for that matter we will see an increase in both demand and prices from the year of '96, and each succeeding year will be higher until they reach their former value.

In breeding the above-mentioned kind of horses, from 15½ to 16½ hands, you will get a class of horses that are suitable for all light-harness use, both for track and road. Some will show speed enough to guarantee training, others being suitable for all single light-harness use for business and road horses and road teams. The class of horses from 15½ to 16½ hands, with good knee action, are always in good demand for carriage and coach teams and bring the best prices of any class, except high-class speed, and even now in low-priced times good carriage or coach teams are in good demand at from \$300 to \$1,000 a pair, and if the quality is high enough will bring very much more. Horses 16½ hands and breezy looking are very desirable to go single for spiders, phaetons and family vehicles and are in first-class demand now at prices from \$150 to \$300. It must be remembered that all classes of horses for light harness must show breeding or they cannot stand the road, and the better the pedigree and the more speed they have the more valuable they are.

Secondly, comes the heavy draft horse. This kind of horse has already become scarce. Farmers have sold their big mares, becoming discouraged because horses were so low, and already but few first-class draft horses are offered in our markets and are bringing very much better prices. I do not understand where the supply is to come from a few years hence. They will surely be scarce and high. As business throughout the country revives the demand for heavy draft horses will be greater than it ever has been since they were first introduced in this country. There will be an increasing demand from this year on.

Right here I want to say that the Percheron horse is very much the most salable. A draft horse bred from the Shire or Clydesdale mare and by a Percheron horse is about the best draft horse that we get, and sometimes I have thought they are an improvement over the full-blooded Percheron, as wherever the Percheron blood is seen the Percheron will predominate and give shape and quality, while the Shire and Clydesdale will make the bone. This is a good cross, and in my opinion will be an improvement over either full blood, but Percherons—grade Percherons—are sought for as draft horses by all classes of purchasers, and they are

much the most salable. My advice to farmers is to breed the heaviest draft horse with all the quality they can possibly get, and be sure and have an eye to color. Bays, browns and greys are very desirable colors.

It must be remembered that in breeding strictly draft horses, some will not grow large enough for a draft horse and still will be good active horses, weighing 1,300 to 1,400. These will be very salable for express horses, but as I said before, in my opinion there are only two kinds of horses to breed, the highest class of light harness and the very heaviest draft horse with quality, and those should be bred strictly for the purpose for which they were intended. Farmers talk about breeding general-purpose horses. Never mind the general purpose horse; there will always be promiscuous breeding, and breeders that breed without any purpose, and the result of this kind of breeding will always produce horses for all general work and the in-between class. There is no question but that the in-between class will always be supplied—so much so that they will be very much cheaper than the two above mentioned kind.

I wish to say a word here about the foreign demand and export trade. We are happy to say that the foreign demand has been the life of our markets for the last two years. Thousands of American horses have been bought and shipped to the old countries. I will give you a description of the kinds bought by foreigners: First, they buy a small, smooth, shapely horse about 15½ hands, weighing 1,100, rugged made with some action, that can move off with elasticity and a good gait. These are used in the old countries for cabs. Secondly, comes a class of chunks weighing from 1,150 to 1,350 pounds. These are smooth, blocky, made very shapely, with some action, and are more of what we call a general-purpose horse. Thirdly, a bus horse 16 to 16½ hands, weighing from 1,300 to 1,450 pounds—smooth-made horses more like what is used by express companies here, and they must be a smooth, rugged-made horse. Then comes the heavy draft, 1,500, 1,600 or 1,700 pounds. Then a smooth, breedy-looking horse 15.3 to 16.1, weighing 1,150 to 1,250 pounds, for carriage teams or coach horses. This last kind brings the best price of any, but must have plenty of knee action. The heavy draft comes next in price, the bus horse and smooth chunks next, and the cab horse brings the lowest of any sold for export, but at the same time they bring very much more than the average price of horses sold for our American markets.

It has been published in our newspapers throughout the country that electricity has knocked out the horse and made him cheap, and that electric and steam motors have taken the place of horses, and I have received a great many letters from all over this country for my opinion on this subject. I must say this is an erroneous idea. Horses ever since the early days of the Greeks have been used for pleasure vehicles and for beasts of burden, and in my opinion they will be so used for all time to come, and instead of there being a decrease in their use, there will be a large increase. The country is growing and the uses for which horses are required are increasing. It is true electricity has taken the place of a great many street-car horses, but where it has shut off the demand in one place it has created a demand in others. For instance, every line of electric or cable cars or elevated roads for rapid transit has caused people to build farther out from business centers, when they can keep and use horses that they would not had they continued to live near the center of the cities. Then, again, people living far out on the electric lines will go to the business portion of the cities to buy goods, and these goods have to be delivered with horses, so on the whole the demand created by the rapid transit lines will very nearly offset the horses that are thrown out of use by electricity. As for electric and other motors that we have read so much about giving speed trials all over the country, and the prediction that they will take the place of horses for commercial purposes in our cities, I want to say to that this can never be done, as steam or electric motors can never be used in our streets. They would cause great destruction of human life and the city authorities would never allow them to be used in the cities, so that is out of the question.

Then comes the bicycle, which has worked some injury to our liveries, but horses that are used in liveries are but a drop in the bucket and will never be missed from the trade. Bicycle riders are a class of people that could hardly afford the expense of a horse, as horses are very expensive. The vehicles, keeping them in repair, and the boarding of horses, all of which is expensive, will only be borne by the lover of horses and people that are able to keep them.

As we read in the "Good Book," false prophets will come and cry, "Lo, here is Christ, or there; believe it not," for the horse is here to stay. So never mind the clamor of people who know nothing about the business. Never in all time to come will horses be made any less use of than during the past ten years. So let us breed the highest class of light harness and heavy draft horses.

The President: The next topic on the program is an address by Hon. R. M. Bell, of Decatur, the president of the Illinois Wool Growers' Association, on the Outlook for the Sheep Breeders of Illinois.

Mr. Bell then read the following:



R. M. BELL.

and purpose for which sheep are kept, the future depended upon. Sheep for human food and for wool with which to clothe the people will always—more so as time goes on—be essentials and nothing can take their place. These must be produced by people engaged in agricultural pursuits—by the farmers of this country.

It may be that sheep raisers will have to be satisfied with smaller profits in producing these flock products. No one can doubt the possible fact that the economies in sheep raising will demand closer attention than has prevailed with us in the past. The cost of production has entered severely in producing wool, and it will be found true in the production of mutton.

Years ago it was discovered that fifty-cent corn, ten-dollar hay and high priced land, with our way of living, perhaps a little more extravagant than really need be, especially after the war, which made us all spendthrifts, would not allow us to raise sheep for wool and compete with the cheapness of the ranges. Added to this where the wools of the world

Mr. Chairman and members of the Illinois Farmers' Institute: "Outlook for the Sheep Breeders of Illinois" has been assigned me to-day, and I must tell you that I am neither a prophet nor the son of a prophet, nor am I Yankee enough to be good at guessing.

Fortunately, my subject is supposed to concern the State of Illinois, and no man ever put the standard too high for anything that Illinois had to do or tried to do.

Sheep husbandry in Illinois, when wool was the prime object, was always, as we all know, dependent on contingencies, so many, and at times—like the present—so cruel that the business has ever been vacillating, at times very promising and prosperous, and again unpromising and unprofitable.

As I take it, the future, with well-rounded, completed, rational systems, varied and diversified, with carefully and well selected principles, with breeds adapted to the soil, climate

from wool to mutton. Among the possible emergencies that may arise are ever depressed financial matters, and unfriendly foreign relations, and tariff legislation, all of which the people of the United States have some knowledge and experience.

It will be found that those farmers with clearest ideas and wisest planning and most careful managing will be the most successful, and those who lack these will be most unsuccessful.

Some changes may come affecting the fleeces, such as the demands of fickle dame fashion, to whom well-to-do and the aristocratic people pay homage. Some of you will recall the rage that set in for long stapled wool without any particular character, a few years ago, when the hairiest, coarsest wool was used for dress goods for both men and women. The same may come again, or the very reverse may obtain when the finest saxony wool may be wanted. If such fashionable demands should come, sheep raising will be affected accordingly. Common sense and business-like manner by an intelligent, skillful agricultural Yankee people.

The changes in agriculture in the west, and in all the wool-growing regions of the world will affect sheep-raising in Illinois. Irrigation in the west and south will affect sheep probably to a very considerable manner, for the demands for food will give a demand for grain-raising and thus leave less room and direct attention from flocks. Should this occur it will give sheep-growing the needed opportunity to renew the worn out, depleted lands of the east, to recuperate and build again the waste places where grain-raising is no longer profitable.

In Australia, the best lands are leased to sheep-raisers, and the time is coming when those lands will revert to the government to become grain lands to feed the rapidly increasing population. This will lessen the quantity of best wools which now compete so severely with American wools.

Diversified sheep-raising will change the industry more and more as time now would to supply the increase of population must be an advantage to the industry. This need not affect seriously the wool product. It is not probable that foreign mutton will affect sheep-raising to any serious degree. Nor can we now determine accurately the ultimate effect of foreign wool upon the sheep industry when mutton shall become the most important product of the flocks.

It may be that later on it will be apparent that the theory that supply and demand the world over will regulate trade more than is now believed. But if this should be wrong, the patriotism of the people, who shall have more exact ideas on the subject, will find a way to correct the question.

A few decades from now will witness vast changes that now are scarcely apprehended. Breeds of sheep will be important to farmers only so far as they meet the variations of climate, soils and the purposes for which sheep are kept. The most important of all these questions, soils, have not received the attention of the American farmers which they should and will later on.

Lamb-raising will be found to be a very ventures along this line are very interesting and somewhat astonishing to the old time sheep men of to-day who follow the methods of their fathers. Some curious discoveries in economics have been discovered in lamb-raising. For instance, the use of skim milk, the by-product of the dairy, for raising lambs. It has been demonstrated by most careful scientific experiments that the modern dairy cow can produce milk at a very much less cost in food than do ewes; that a pound of butter-fat from the cow costing little more than half that required to produce a pound by ewes. Here is a suggestion that will not escape attention, and will be used later on when lamb-raising becomes an art.

Along the line of feeds much valuable matter is to be learned as relates to quality of meat, quality of wool and early development. Some of these facts are already known to exist, some are apprehended, while a vast deal needs only scientific investigation to be used.

The crucial ordeal of the last few years has produced grand results both in the past, and can be depended on to stay whether times are good or bad; it is truly the survival of the fittest.

That we are becoming a mutton-eating people no one can doubt; and, as the people have come to like it, they have grown more fastidious and want not only more of it, but better quality. More mutton has been consumed during the last year than ever before in the history of this country. As this has developed, more attention has been given to raising sheep with mutton characteristics. Fortunately for American farmers, the size of the mutton carcass has altered so as to allow the mutton Merino to be the most economical and acceptable to consumers. The large carcasses are severely discriminated against, and will continue to be by cultivated people. Only laboring people can eat and enjoy the fat, tallowy meat that formerly was acceptable. This is as true of the Englishman today as the American. It will be seen that we have outgrown much of the practices and prejudices of the past. We begin to join in the march of progress. We are in better sympathy with the evolutions of flocks in improved agriculture which appear more and more necessary all about us.

When this new sheep husbandry was first thrust, we learned that blood did not mean everything, but had to be supplemented with better feeds and better treatment than we used for wool-growing. At this point we became discouraged and were hardly willing to learn the new lessons. This is still true with many. English farmers were in the same quandary two hundred years ago; but, fortunately for them, turnip farming was introduced into their agriculture, and mutton-sheep husbandry was at once solved for them and all time.

It may be that American farmers will do the same way, or by many ways; but certain it is they will have to decide it as best suits their various soils to answer the same purpose.

It is said by some that most desirable mutton sheep cannot be had with most desirable fleeces on their backs. It is now being successfully done. In fact, such sheep are coming from the ranges good enough to be exported to England, especially when finished on Illinois corn and clover hay. If the ranges can do this environed by new conditions, conditions that are imperative and exacting, but not insuperable by any means; they yield readily to those who try intelligently and persistently.

The signs of returning prosperity to the long-suffering and disturbed flockmen are unmistakably seen. If there were no other evidences the loss of eleven million sheep would be quite enough.

Did you think of it? Only wool-growers have been suffering. The mutton-raisers are prosperous, and these are gaining in numbers all the time. The new flocks being established are all on a mutton basis.

It was said ten years ago that 95 per cent of the sheep in the United States were of Merino blood, which meant that only 5 per cent were for mutton. When we shall be better informed along this line, it is doubtful if 25 per cent of the flocks are of pure Merino blood.

In conclusion, let me say the outlook for sheep in Illinois was never more promising in our day. The day is not distant when flocks will be a part of the equipment of every well-ordered farm. Intensive sheep-raising and intensive farming must go together.

Mr. Deane: Mr. President, I understood that the Governor has extended a very cordial invitation to the Institute to meet him at the Mansion at half past four o'clock this afternoon. Therefore, I move we decide to accept the invitation tendered us, and that we adjourn at half-past four o'clock in order to go to the Executive Mansion in a body.

The motion was passed.

The President: There are forty minutes yet. The next paper on the program is an address by Mr. D. W. McCracken, editor *Corn and Hog Journal*, on "The Outlook for the Swine Breeders of Illinois."

D. P. McCracken, of Paxton: Mr. President and members of the Institute, as farmers and stock-breeders of this, the greatest State on the face of the globe, I am glad to be able to address you.

Some great man said, "if you can't express yourself, just go by freight." So I go by freight.

There is nothing at all the matter with the outlook of the Illinois swine-breeders.

Prices of pork product are lower than twelve months ago, but there is a greater margin between them, just the same. There is a good supply in sight, but nothing like an over-production. Everything points toward better prices for pork, while no immediate bullish tendency is apparent in the grain market, so that grain can hardly be fed unprofitably this season.

Returns from the British Board of Trade show the entire hog product imported into the United Kingdom for the first seven months of 1895 to be forty-one and one-half million dollars worth, of which thirty-one and one-half million was furnished by the United States, or over three-fourths. These figures are not widely different from those of like periods of 1893 and 1894.



D. W. MCCRACKEN.

Our Agricultural Department has done good work in the inspection of meat for export, demonstrating that it is practically free from disease.

What we need, in addition to home inspection, is a foreign surveillance of our meats, first, to do away with the condemning farce, and second, that our meats may be sold for what they are.

The department "Year Book" on page 10, tells us that "large proportions of the meat thus taken into England are sold in the retail markets of London, Liverpool and other large cities, as 'prime Scotch' or 'English' beef," and if they do this with American beef, who is soft enough to believe they do not with our tender and juicy hams and bacon?

Not satisfied with feasting off the fat of America they send us over word that only prime flavored pork comes from Ireland, produced from beans, oats, turnip tops and the ash from Paddy's pipe. If this is all that is required to produce such "illigant porrick," why don't the beef-producers "catch on" and save their corn to make whiskey for Paddy? All honor to the land of my fathers, but America can produce the ration in any part of her borders.

Speaking of the "Year Book," I can admire it as a whole and yet disagree with it in detail.

I want to enter protest against the department going into the breeding business; but if it must we want to recommend that Mr. Morton select a more profitable breed than the Tamworth. While I was assisting a well-known Iowa swine-breeder in stretching a tape line from the eye to the end of the nose of one of those Canadian "What-is-its" at the

Columbian (and which, by the way, measured eighteen inches), I overheard a naughty bystander exclaim to his wife: "No! that ain't a hyena; that's one of them worthless *hogs*."

Secretary Morton and Sanders Spencer, the English stock writer, agree that improvement spoils the hog for bacon, and recommend respectively the Tamworth and Large Yorkshire. These are only slight improvements over our glorious old "razor back," which must, by such reasoning, stand the personification of the bacon type, and in fact, the bacon from the "razor back" is said to be excelled by that of no other breed.

We have imported of the valuable stock of all nations, until we have the best stock produced on earth, and have in abundance the best possible ration for turning their product into beef, pork, mutton, butter or cheese, and forever away with this rot about American meats being less wholesome, delicious or richly flavored than the product of any country on the globe.

I cite you, for proof of my position, to the wholesale markets of London for 1895, in which, in spite of the idea urged that Irish and Danish bacon is superior, the English bacon has averaged from \$1 to \$3.60 per hundred higher than any of the five competing brands. It will be a cold day when England quotes anything grown on foreign soil as best.

The Irish pork-producer markets his bacon in England and buys his own supply from the fat sides of America. Sensible man!

We have a few wealthy people in America who like good things as well as anybody, so I have looked up the imports of these famous brands of bacon, and find a little over \$400,000 worth of "preserved" meats all told in the list, bacon not even being mentioned. American bacon seems to suit this class all right.

As corn seems to be the foreign club with which our bacon is punished, I will say that pork can be produced almost, if not quite, as profitably on other cereals as on corn, but no hog the type of the breeds mentioned can ever make a profitable showing on the rich grain lands of America.

The bacon is only a part of the hog at best, and in the specimen we referred to at the Columbian would have been nearly offset by the head and tail, and certainly with the feet and bristles added.

While Denmark was exporting \$6,000,000 worth of bacon, the United States exported \$38,000,000 worth, and sent along with it \$40,000,000 worth of lard and \$15,000,000 worth more of hams and other hog product. Two noticeable features about which were, first, that we exported \$38,000,000 worth of bacon and but \$7,000,000 worth of hams, showing that hams are good enough for an American; and second, that even with this small proportion of hams exported, the bacon is little more than one-third of the \$93,000,000 of hog product export.

Fully three-fourths of our great land is as well and even better equipped to produce prime bacon than any of our competitors, and such sections of the country will do well not only to reach out after this market by producing such product, but to see to it that it is graded and gotten into such markets under its own name and brand.

But for the State of Illinois is reserved a greater destiny. Out of her yards must come the juicy ham, the mess pork, the short ribs, and last, but not by any means least, the "oil of plenty," in which the world shall fry her flap jack, and with which shall be greased the "hub of the universe."

The President: The next is an address by Mrs. Judy on "The Outlook for the Poultry Breeders of Illinois."

Mrs. R. A. Judy, of Decatur, Illinois, then read the following:

OUTLOOK FOR THE POULTRY BREEDERS OF ILLINOIS.



MRS. R. A. JUDY.

nestly advocate the concentration of mind and money in special lines of agriculture and stock culture, with a view to higher excellence in each specialty. Yet as a product of the farm myself, and as one who in the love of nature holds communion with all her creatures, I have never found it in my heart to deprecate nor decry the humblest allotment of labor that is cultivated above or beneath the soil.

Through the kindness—or probably by reason of courteous consideration for the weakness of my sex—the Honorable Officer of this Institute has assigned to me the subject of Poultry; Its Future Outlook in Illinois. This subject is more important and profitable than it would seem to be from the first superficial thought, and it involves the necessity of first scanning the past and present status of poultry culture in the country at large, that we may the more intelligently describe this industry in the great State of Illinois.

Until within the past few decades, poultry culture as a profession or as an industry was unthought of, unknown and ignored in this country; even now there prevails a prejudice among farmers against poultry culture that bars the best results, that weakens confidence in its just claims. To dispel this unjust prejudice and to advocate an appropriation in behalf of this industry is my apology for accepting your invitation, and claiming your attention on this occasion.

The poultry culture of the past as compared with the present, presents a general complexion of degradation that is almost comical—an honest cartoon of the poultry of forty years ago would be equally ludicrous and difficult to draw. The raising of poultry by men was never attempted, so in this one great industry there is no man who can have the hardihood to deny that women have blazed the way. The wives of a few farmers more enterprising and intelligent than the rest were allowed to look after a few fowls that were a mongrel mixture

Ladies and Gentlemen, it is expected and considered natural that everyone shall magnify his mission. We are not come to you to magnify, but to truthfully report her majesty, the domestic hen. We leave the magnifying to the advocates of other farm animals.

We believe in one Lord, one faith and one baptism. Carrying our convictions into business, we believe in one avocation, and in special lines of labor. The man who breeds horses exclusively, knows more about the noble Norman, the champion Clydesdale, the charming Cleveland Bay, and the superb animals whose great speed is the special pride and glory of this famous country, than Prof. Harris does, who wrote a famous treatise on the Pig, and expanded the title of his book by saying he wished to have nothing to do with the hog, because he cultivated only such swine as he could put onto the market under one year old, while they were yet pigs. But this Professor Harris knew more about hogs than the horse man does, or perhaps anyone else, especially those who breed everything promiscuously, and make nothing a specialty. We ear-

of all the endless varieties that had crossed incestuously since their exit from Noah's Ark. They combined every shape and color, and were all crowned by the same suggestive title—*Dunghill Fowls*. The name is not of classic origin, but relates rather to the source from which they scratched a scanty living. Impelled by the terrors that were thick about them, or by suggestion of stern necessity, they sought to enter the realms of sleep and safety on the fence or in the trees, and to forage in field or garden, grain stack and crib, and otherwise steal what they could from the other well fed stock. They annually hatched their chicks from eggs they succeeded in hiding in the weeds and brush from the crow who hunted them by day, and coons and other animals who preyed them by night. These wild and wayward hens had a rough, romantic and cheerless chance. Against all odds, however, two or three would come creeping out of their hiding places chuckling to one little sorrowful chick, which they were allowed to care for and comfort, since their time was computed to be of no consequence. Again some old, blue biddy with cunning above her kind, would overcome all obstacles, and sheltered from the rapacity of all around her, this long lost, this forgotten, this ancient, ugly, honest, earnest dunghill hen would come out from her covert with a chick for every egg, and she hazarded her life on the altar of devotion to maternal duty. We had no early chickens then, because it was only the summer and autumn weeds and tall grass that favored nest hiding and natural hatching with the old common hen. Such of the ancient stock as survived the winds of the winter, or were not starved or frozen to death on the trees, emerged in the spring with frozen combs and feet, and with systems so out of order that they seldom succeeded in gathering from grass and garbage nutrition enough to bring the abused system back to normal action and honest business by April or May. They were the same in every section all over the continent. They crowed, cackled and looked alike from Maine to Mexico. Their average weight when full grown and in prime condition was about three pounds. They would fight man or beast. I have seen them pursue a hawk on the wing for hundreds of yards trying to recover a stolen chick. They were seldom fat. They sought few favors, and took care of themselves from choice, from habit, from instinct and from necessity. They mixed and married at will, all were merged into the great plebeian family of mongrel barnyard poultry. They were thus bred for ages, forward and backward incestuously, and so long that each specimen bore the undisputed stamp of its origin, and everywhere chickens were only tolerated or allowed to live provided the women gathered the eggs and "bought the groceries." No man fifty years ago advocated the careful cultivation of *poultry on the farm*. Poultry thus used and abused, thus fed and bred were seldom fit for food or market, for only when fed from nature's lap in summer and autumn were they either fat or fertile.

Intimately associated with such a system as I have sketched, my youthful ardor knew no bounds, my thoughts were always with the chickens. Partiality for poultry has possessed me from earliest recollection and it grew and systematized with later developments, and still remains a pleasure that is past understanding. The personal care of poultry supreme over everything in animated life is the one kind of labor that I really love.

Thus matters moved on until about 1845, when importations of the Shanghai introduced big blood, the larger the better. The lordly Light Brahmas followed, and these produced the great furor for fancy or thoroughbred fowls, which, like every other boom, rose and reigned and fell. The people were not educated as to the needs and necessities of such stock. Poultry journals were unknown or poorly appreciated. From one end of the earth to the other the slumbering industry was utterly devoid of information and of literature. Precipitate action in any cause endangers defeat. People must be educated up to the required condition. But revolutions never travel backwards. Meantime the thoroughbred fowl was laying a firm foundation for a substantial industry. New blood was infused, larger and better fowls and eggs followed, and the people

began to see virtue and value where before they saw what they were pleased to term a fancy fraud or a costly luxury. Encouraged by a healthier public appreciation, a few importers who felt the public need, with pen and press and organized effort, kindled into strong and steady flame the sparks of pure-bred poultry culture in America. These importations of beauty suggested a source of profit to the market poultryman, and induced him to sell his stock by weight instead of by the dozen. Thus has been demonstrated the right relation between thoroughbred and market poultry, and thus the interest has grown. The love of pets is inherent in the human race, and especially to such as have it in a high degree and who wish both pleasure and profit do we recommend poultry culture. Domestic poultry is as universal as vegetation and is found in every door-yard. The personal importance of poultry can only be estimated in the absence of fresh eggs and spring chickens, and this must ensue unless there be some stimulus to produce in excess of self-supply. Were these excellencies of diet denied the humblest household, the rarest luxuries of life were lost, and cook and kitchen soon would lose their proverbial power to "soothe the savage." Coffee, cake, pudding and pastry all confess the important necessity of fresh eggs; nor is this confined to taste, for aside from milk there is no other article that furnishes so much brain food, and so contributes directly to the domain of human intellect. It is impossible to over-estimate the special importance of this most excellent diet; and so, following the necessity of their supply, we briefly consider the almost incredulous public demand for poultry and eggs. We may in some safe measure determine the commercial status of this industry in other countries and in our own.

Belgium, with an area of 11,373 square miles and a population of 5,500,000, with 60 per cent of its area under the most exhaustive cultivation—Belgium, no larger than the State of Georgia, with three times Georgia's population, produced annually 275,000,000 eggs, or 48 eggs to each inhabitant. This in a country where the most persistent effort is made to cause the soil to yield a scanty sustenance. Even with such a system of farming they derive insufficient profit from their crops and are driven to strict economy, and they find the largest returns with the least outlay come to their aid from poultry culture. If such are the results from such adverse circumstances, what grand possibilities suggest themselves with infinitely better facilities for such an avocation where food is overabundant in the great State of Illinois? Here our soil yields the richest returns for the slightest labor, and here grain enough is annually wasted to feed the whole population of Belgium; and still in all the United States the products of poultry culture do not meet the home demand. Again, France, with an area of 204,147 square miles, of which only 98,460 are capable of cultivation—France, with a population of about 50,000,000, realizes more than \$250,000,000 annually from her poultry. If the territory of France was equally divided among her population, there would not be two acres to each, and yet France furnishes England annually over 900,000,000 eggs. Besides this enormous exportation the French people annually consume 3,000,000,000 of eggs, making over 3,900,000,000 eggs produced annually in our little sister republic. The cash value of her exported eggs is \$13,000,000 and of those consumed at home \$35,000,000; and adding to this \$75,000,000 for poultry consumed and exported, and \$45,000,000 for stock carried over each year, we find that the poultry interests of France represent an industry of \$168,000,000. Passing from the difficulties, drudgery and magnitude of poultry culture in foreign countries, where obtaining eggs for sale, rather than the wholesale hatching of chickens by machinery, as we practice in this country, forms their principal object in poultry culture, we come to consider the extent of the poultry industry in the United States under its present development and its capabilities under more energetic and scientific management.

Careful inquiry reveals the fact that here at home is the best poultry market in the world, because the United States, instead of producing more eggs than we consume, import over \$3,000,000 worth of eggs annually. Statistics show that in 1872 we imported 6,000,000 dozen eggs, at a

cost of \$1,440,000. This announcement should have stimulated our producers, but in 1882, ten years later, we imported 13,000,000 dozen eggs, at 24 cents per dozen, equaling \$3,120,000. At the present time we import over \$5,000,000 worth of eggs annually. This is but a suggestion of the outlook in Illinois to any enterprising farmer who will devote himself to the industry.

A few years since a convention of butter, cheese and egg producers was held in Chicago, and such reliable statistics as could be found were gathered and placed before the convention, and disclosed the fact that the egg trade alone amounted to \$180,000,000 and, with poultry marketed, to \$250,000,000. The statistics were quite incomplete, being taken from a State here and there and from a personal knowledge of certain localities, and so did not represent the true value of the industry in the United States. This was nearly twenty years ago. More recent statistics assure us that New York state consumes and sells over \$90,000,000 worth of poultry and eggs. But New York does not produce 10 per cent of all this. It comes to her from foreign countries and from different parts of the United States. New York state and city consume about \$45,000,000 of poultry and eggs annually, aside from what she supplies to surrounding cities and summer resorts and to vessels leaving her ports. Her population being over 5,000,000, it follows that each person there consumes only \$9 worth of poultry and eggs. When we consider the interminable train of travelers that pour through that city, the wonder is that these figures are not magnified many fold, as poultry and eggs enter into every bill of fare. The fact is that this food cannot be furnished in sufficient quantities to meet the demand in all great cities. It is reasonable, then, to conclude that each individual throughout the country who has full access to these supplies consumes more eggs and poultry than those in the cities. So we may safely draw our statistical data from the commerce existing in New York, and so calculate with respect to the country at large. If, therefore, New York, with 5,000,000 population, consumes \$45,000,000 worth of poultry and eggs annually, the United States, with 70,000,000 population, would consume over \$600,000,000 worth of poultry and eggs annually. Statistics drawn from the United States bureau in 1882 reveal the cash value of the produce of the United States as follows: Cotton, \$410,000,000; hay, \$436,000,000; dairy produce, \$254,000,000; wheat, \$488,000,000; poultry and eggs, \$560,000,000. Be it remembered the latter is the only product that we do not export and the only one we do import. Statistics show that we imported 6,000,000 dozen of eggs in 1872 and 13,000,000 in 1882; still the demand increases, prices advance and importations of poultry and eggs from foreign countries double with each decade. Statistics are dry truth, and not all of the truth. Mathematics reveal the actual reality of things which are truth. Statistics show that wheat, the greatest agricultural product of this country, is surpassed by the poultry product \$72,000,000 worth, which amount is four and a half times what Jefferson paid France for the southwestern half of this continent. Seventy-two million dollars will build twenty-four great battle-ships. It will equal, almost, both of President Cleveland's famous bond sales. It is almost equal to the appropriation recently made for the national armament when our Chief Executive for once grew patriotic; and this \$72,000,000, mind you, is the excess of poultry culture over the greatest of the other productive industries in these United States. Further bear in mind it represents only the laboring class of hens, for Uncle Sam has never recognized the bon-ton in poultry. Wheat, corn, hay, cotton, cattle and other American products are each and all cultivated only in certain sections and altogether unknown in others. But poultry, like God's benediction, like the blessed sunshine and showers, imparts its favors everywhere alike in castle and cottage, wherever humanity has found a home, and so this universality of poultry culture explains the magnitude of the figures we have furnished; yet these figures are far short of the actual facts, which, if brought up accurately, would seem almost fabulous.

These facts and figures suggest that here is one industry that is not overdone, and that opens up to capital and business competency right here in Illinois the most magnificent possibilities, for the industry is only in its infancy. With the aid of the incubator by which your eggs can be converted into chickens by machinery, and the other essential, a system of cold storage by which your product can be kept fresh and sweet indefinitely, you can market your product in New York or Boston at 40 and 50 cents for young broilers and 25 to 30 cents for cold storage eggs. The outlook for poultry culture in Illinois lacks only the essential impetus of a suitable appropriation from the State to put such an enterprise in operation, and so demonstrate to the farmer of Illinois the certainty that scientific poultry culture may be made practicable and profitable. The food problem for the millions destined to find a home on these shores is not too insignificant for the sober and serious consideration of our ablest statesmen, and while an appropriation for fish culture is commendable, a larger aid for this industry would encourage the breeding of better and more prolific poultry all over the State. Our aim is to attain to greater excellence in size, symmetry, beauty, egg productiveness, health, hardihood and general utility among our poultry. There can be no question that the poultry of the present is infinitely superior in every worthy way to that of a few years ago. We have attained to such increased size in both poultry and eggs, that the poultry man can no longer afford to sell his eggs except by weight. We have so selected and systematized our breeding that fresh eggs may be bountiful the year round.

We have sketched the past and present of poultry culture, which suggests the outlook. There is nothing to bar the onward and upward progress. The demand increases, and we will probably never be able to produce more than the forty-five great governments that compose this magnificent federal system of states can consume. Such is the market all about us in such a country as Illinois, the center of the globe, the garden spot of America. We have the soil, we have the intelligence, we have the stock, we have the energy, but our energy is taking a nap. We are here to-day to wake you up. What is the outlook for Illinois? In Quincy, Illinois, a single incubator firm in the past three years has averaged sales to the number of 3,000 machines each year. Four years ago they employed three men and occupied one room, and spent less than \$500 in advertising. Last spring they employed ninety men, and paid out \$12,000 in advertising.

A poultry journal established less than two years ago in Illinois has a paid list of twelve thousand subscribers, a guaranteed monthly circulation of sixteen thousand, with eighteen hundred Illinois subscribers. It circulates in eleven foreign countries, among them England, Scotland, Germany, Australia, New Zealand, Mexico, Cuba, etc.

We think the outlook very encouraging, because formerly poultry culture was indulged in only by the fancier as a pleasure and a pastime. The farmer did not recognize it. The huckster was the patron of the fair association, and systematically robbed the association and the farmer, plying his vocation, that of lying and cheating, with a skill, nay, talent, worthy of a better cause. He never advertised, he had nothing to advertise. He was not a breeder, not even a dealer, except at fair time. He has had his day, and to-day the honest breeders are supporting the fairs, and in all honesty of purpose we beg the officials of the different fair associations to support the breeder, and to assist honorable, commendable poultry breeders to annihilate the memory of the huckster. We are encouraged because state associations are being organized in so many states, and local associations in all counties. Agricultural papers are giving great attention to poultry experiment stations, recognizing their importance. The United States Department of Agriculture Bureau of Animal Industry has recently issued a 90-page pamphlet of investigations and diagnosis of infectious diseases of poultry. Appropriations are being asked and granted in different states. Farmers' Institutes that formerly ignored poultry as a farm product solicit papers on the subject of the best talent in their reach in the different states.

Forty poultry shows have been and are being held in the months of November, December and January, and members of nearly every one of these associations have written us for stock for exhibitions and for breeding purposes. Wake up your enterprising men, produce the stock in the quality and numbers that is demanded of you, and every sister state in the union will contribute to your fund. The outlook is broad as the mind's eye can reach and discover fertile soil and spontaneous vegetation, wherever the sunbeams fall on domestic animal life clothed in feathers.

The President: Now, gentlemen, our time for adjournment has arrived. The Governor desires that everybody here shall meet him at the Mansion, and you will all enjoy his hospitality.

The Institute adjourned to 7:30 o'clock P. M.

EVENING SESSION.

The Institute met as per adjournment, called to order by the President, F. M. Palmer.

The President: The time has arrived for opening this session. I take great pleasure in presenting to the Institute as your chairman for the evening Hon. D. W. Smith, of Springfield, the active and earnest President of the Illinois Highway Improvement Association, who needs no introduction.

Mr. Smith then took the Chair.

The President: The first address on the program this evening is on the subject, "The Agricultural Press," by Hon. David Ward Wood, of Chicago. I have the pleasure of introducing to you Mr. Wood, who will address you.

THE AGRICULTURAL PRESS.

I hardly know what to say upon the subject that has been assigned me. I do not think that it is the most practical subject that could be discussed at a meeting of this character. It seems to me that we publishers and editors had better sit and listen to discussions of the subject by people who take and read agricultural papers. We might learn something from such a discussion. Perhaps Col. Mills did not expect me to say much when he extended to me the invitation to address you. He may have felt something as the boy in the railroad station in New York felt. His mother approached the ticket agent and asked him when the train left for New Haven. The agent answered, with a very peculiar twist of his mouth, that it left at 10 o'clock. The boy was interested in the man's peculiar handling of his mouth. He sat for a time in the station and then approached the ticket agent and asked him when the train left for New Haven. The agent replied, with a still more extravagant twist of the mouth, that it left at 10 o'clock. Finally the boy induced his mother to again ask the agent when the train left. He replied with the usual peculiarity of mouth motion, that it left at 10 o'clock, and said with some impatience: "I have told you and the boy now three times when the train leaves." The mother said: "We know, sir, when the train leaves for New Haven, but my little boy here likes to see you work your mouth," and I have thought that when Col. Mills invited me here to present such a subject as this, on an occasion like this, he did not expect me to say much, but that he wanted to see me work my mouth.

In order to relieve myself from the charge of extreme egotism, for I may make very high claims for the Agricultural Press, I wish to say that a great deal of the work that has been done for the farmers of Illinois, was done before I came into the State, twenty years ago, and that at the present time I am only a modest member of a considerable army of practical, hard-working, judicious men, who as editors of agricultural journals, are laboring with their best ability and with all their energy to advance the interests of agriculture. We will consider that the farmer's voice is not in existence, that all that I say will be in eulogy of the Agricultural Press of the State outside of my own paper, and I want to say to you that no State in the Union has such an able, practical and conscientious agricultural press as the State of Illinois, this splendid agricultural State. The personal interests of the gentlemen who are conducting this press, are, of course, intimately connected with your inter-

ests. Your prosperity is their prosperity. Any disaster that comes to you is visited directly upon them, and hence sometimes when you are asleep they are trying to devise means by which they can make the farmer, the dairyman and the live stock breeder successful. There are peculiar ideas in the minds of some people as to the proper fitness of an agricultural editor for his position and the proper functions of an agricultural paper. The opponent of book farming is frank to say that he knows more in a minute than any "dude" city agricultural editor knows in a lifetime. His notions of editing seem to be that anything that appears in an agricultural paper which is not the direct result of the practical experience of the editor, is slush and fanciful. Now practical experience goes a very little way in editing a paper of this character. Not one of you ladies and gentlemen, who do me the honor to listen to me, with all your acknowledged intelligence, with all your familiarity with the details of farm work, and with all your knowledge of the sciences which ordinarily apply to the culture of the soil, if you were an editor of a farm paper, could fill your paper for six months, no not for three months, if you depended entirely upon your experience. No one should ever attempt to edit an agricultural paper unless he has a farm education, but while practical experience will go a very little way in conducting a paper, it is of value in helping to decide as to the merits of new methods, new machinery, new inventions which may be presented for the farm. The agricultural editor does not profess to know everything. He may not know even as much as some of his readers know in many particulars. He will sometimes stumble and show his ignorance just where he might be supposed to have complete knowledge. I often do this and sometimes feel ashamed of my ignorance. I remember some years ago a subscriber wrote me in a greatly perturbed state of mind, saying that a neighbor of his was about to establish a skunk farm. He asked me how many skunks I thought ten acres would support. The whole thing was monstrously absurd to me, and I replied that in our experience one skunk was all that any ordinary farmer could take care of and more than any ordinary community wanted. Well that question and reply brought information from skunk farms all over the country, one as near to me as Michigan. The writer said it was a profitable and pleasant business and that if the animals were fed and cared for in the proper way, that you could safely hug a skunk and kiss the "skunkee." Now it might have been supposed that I should have known of the existence of such a business connected with agriculture, but I did not; and thus the agricultural editor sometimes stumbles upon a fact and often drifts unconsciously into some course that results in the greatest benefit to his readers. I remember that I drifted in this way twenty years ago into opposition to oleomargarine and in favor of dehorning, both of which positions I believe to be in the best interests of the farmer and live stock producer. The agricultural editor has this great advantage over his intelligent readers. All the agricultural progress of the world comes to his notice. All the books, good, bad and indifferent, written upon farm industries come to his desk. All the agricultural experiments and experiences of the world come to him in his exchanges. He has the practical experiences of many of his most practical readers detailed to him and the failures and the causes of failure rehearsed to him by many of his readers. If he is a competent editor he will sift all these things, using his paper as a sieve, and will give to the farming public for a dollar a year, and perhaps less, the information that would cost you hundreds of dollars. The Agricultural Press is faithful to you because it cannot afford to be otherwise for reasons already stated, but it has a much broader and nobler motive in advocating your interests. It believes that the prosperity and perpetuity of this republic depends directly upon you men and you women of the farm. The city in its turmoil, its passion and its excitement, may sometimes think that it is patriotic, and yet it distrusts itself many times and looks out into your honest faces and into the honest hearts and says: "There is our protection, even from ourselves."

I remember, as you remember, that when the anarchists were buried, the quiet of the Sabbath was disturbed by the tread of a procession in which there was more pent up foreign and ignorant hatred to your flag

and to your institutions than was ever massed upon one spot of American soil since Cornwallis and his invaders turned their backs upon the acknowledged republic. Silently this column of treason trudged its way along our streets, every heart aflame with ignorant enmity to our laws, and every eye flashing a defiance to constituted authority, while the American heart throbbed heavily at the thought of the possibility of such a demonstration upon the sacred soil of this consecrated republic that our fathers and our brothers died to preserve for you and for me and the children that are playing at our fireside.

There was not an American sentiment in a single heart that throbbed in the angry line, though there were native Americans there; there was not an American emblem casting its shadow upon the motley crowd. But the scene changes, in an instant a Union veteran, with the only hand he had brought with him from the battle-field on which he had offered his life for American institutions, unfurled the stars and stripes and leaped at the head of tramping, seething anarchy and, holding aloft the banner of the brave and the banner of the free, shouted: "We'll all march under this flag;" and they did march under it. Not a hand dared touch the flag or the battle-burnt son of America who held it triumphantly toward the heavens. Was it patriotism? Oh, well, I suppose so. Was it bravery? Unquestionably it was brave. The man has a splendid record for valor through a long army experience. But you go with me to-night into South Clark Street, and I will show you that man and he'll be a drunken, bloated, ignorant specimen of humanity, whose patriotism is quite as apt to do harm as good.

But we want intelligent patriotism, conservative patriotism, and sober patriotism, and the Agricultural Press feels and knows that in the farmers of America that sort of patriotism can be found. Your press is proud of you, and leaving my paper entirely out of the question, I am proud of the balance of the agricultural press in the great State of Illinois.

The President: The next address will be by the Honorable B. W. Snow, of Chicago, on "Agricultural Statistics." I have the pleasure of presenting to the Institute Mr. Snow, who will now address you.



B. W. SNOW.

Mr. Snow: Mr. President, ladies and gentlemen, I naturally feel embarrassed to follow so eloquent an address as that we have just listened to, especially in view of the fact that what I have to say is on an exceedingly dry subject. And I was embarrassed in the beginning, looking at the program, to find your committee had put me down to talk on agricultural statistics. Outside of the fact that statistics are generally recognized as exceedingly dry, I also recognize the fact that the general public are very apt to put statistics in a class apart by themselves. I think it was Rufus Choate who showed knowledge and a good deal of keen analysis when he said it was positive liar, comparative blanked liar and superlative statistics. (Laughter.)

It was very much on the same line when an opponent of Thad Stevens, in a debate, quoted from a volume of statistics, saying, "Mr. Stevens, statistics do not lie." The old Commoner replied, somewhat dryly, "No, but the men that make them do." (Renewed laughter.)

I might confess, outside of those I make, statistics are sometimes misleading.

What I am to talk about is crop reporting. I make a shift to distinguish between that and statistics; for, however well determined they may seem to be, crop reports in the main are mostly mere tabulated opinions, each unit thereof being a personal result, and the correctness of the tabulation depending on the accuracy of the person furnishing the primary matter. I might say, on one side of the line lies the land of fact; on the other side, the pastures of fancy. The crop reporter undertakes to travel as closely along that line as possible, meaning of course all the time to keep just over on the side of fact, but occasionally misled more or less into the region of fancy. That may account for some of the very fanciful statements that sometimes emanate as crop reports.

CROP REPORTING AND THE FARMER'S INTEREST THEREIN.

Modern crop reporting has two objects—first to furnish indication of final results during the crop growth, and second, to furnish at the end of the season reasonable approximation of aggregate crop production. The latter object, statistical records of the results of the year's harvests, is the primal object of all systematic work in this field, but the first is of most direct importance to the agricultural and commercial interests of the country. The final figures furnish a concrete history of the season's results, valuable to the economic student, the statesman and the farmer who intelligently plans his years operations ahead in the light of supply and demand for his products, but probable results of crops already growing are of more importance to the great mass of agriculturists. The great majority are more immediately interested in values as affected by probable crop results than in the final records which should influence future operations. The one is a live question furnishing data immediately available, which must be used in determining what should be done now, while the other can be studied at leisure.

In all the systematic crop reporting both objects are held in view. In order to secure data upon which to base final estimates of production, the reporter must gather facts concerning the situation during the whole season, beginning with the planting of acreage, and following the crop through its various stages of growth, up to the harvest and final rate of yield per acre. The first object, that of furnishing indications of final results, is accomplished by making public in intelligible form the various facts affecting this result as they are ascertained by all the successive investigations, during the season. It is simply furnishing the public by piecemeal the data which is gathered and stored up for use in finally determining upon the year's results.

The foundation of all crop reporting, and the simplest form in which it appears, is the almost universal greeting between farmers of different districts when they meet, "How is your corn?" "How is the wheat crop in your section?" "How are your hogs doing this year?" This is an instinctive effort to keep posted beyond the confines of possible individual observation, and crop reporting shorn of all its technical features, divested of its system and method of expression, is simply the carrying out of this idea upon a scale covering a state or the whole country. A crop report is simply an accurate consolidation of the views of a large number of local observers, each taking cognizance of conditions in his own district and all observations being taken at the same time.

HISTORY OF REPORTING.

The credit of the first systematic and continued effort in crop reporting belongs to this country, though the principal foreign countries now make effort in that direction based upon the general plan followed here with such modifications as their different general conditions require. The first official recognition of the value of statistics of agricultural production in this country was in 1839, the sixth national census being the first to make any special return of farm products. In the same year, Henry L. Ellsworth, Commissioner of Patents, induced Congress to ap-

appropriate \$1000 to be expended in "the collection of agricultural statistics and for other agricultural purposes." This was the beginning of what is now the Department of Agriculture, and it may be noted that the collection of statistics was the first specific duty assigned the new Bureau. The officials charged with the duty of carrying out the intention of Congress satisfied themselves by publishing from year to year such fragmentary data regarding the production of the year as could be secured after close of harvest, but made no effort to furnish public information as to prospects and probable results during the growing season. It remained for private enterprise to point out the necessity for current information and methods by which such information could be obtained. In 1862, Mr. Orange Judd, editor of the *American Agriculturist*, recognizing the necessity for such information, devised a system and began the collection and publication of this data in the columns of his paper. He continued this work a year, it attracting much attention, but it grew rapidly and became a burden involving more work and expense than he felt should be imposed upon individual enterprise. In 1863, after much effort, he induced the Agricultural Bureau to take up the work upon a more extensive scale, furnishing the officials in charge with his list of correspondents, the system he had devised and the record of his year's work. This was the beginning of modern official reporting, and from June 15, 1863, when the first report was issued, the Department has since regularly published reports of some character. If Mr. Orange Judd first devised the system, its elaboration, scientific detail and reduction to practical working, was the work of Hon. J. R. Dodge, for many years the Statistician of the Department of Agriculture, whose careful study of all phases of the question, together with his exceptional mental equipment, have made him a recognized authority in matters pertaining to American agriculture.

METHOD OF REPORTING.

An extended discussion of the scientific side of crop reporting is not essential at this time, but a brief statement of methods followed will tend to a fuller understanding of that phase of the subject which I wish to present. In this country all systematic reporting is carried on upon practically the same basis, and as the journal I represent, the *Orange Judd Farmer and American Agriculturist*, is the only private authority which completely and systematically covers the field, I will explain the method and system which I follow. Local observers are stationed in every county in the productive regions of the country, selected on account of their good judgment and thorough familiarity with local agricultural conditions. When circulars of inquiry are sent, the questions varying as the season progresses, each confines his answer to the facts as he sees them in his own territory. The compiler must know the relative importance of each county in the production of the crop reported on, so that each local return may have proper weight in fixing an average which shall fairly represent the sum of the consolidated judgment of the local observers. It would not be sufficient if each man was simply asked his views concerning acreage or the prospects of the crop in his locality, as we would get a series of such answers as "larger," "smaller," "good," "best in years," "poor" or "failure," each of which would have a definite meaning to the man making it, but which would not carry that definite meaning to the compiler. When information is gathered from so large a field, it is necessary to have some common medium of expression, which will have the same meaning in all districts. To reach this end, each correspondent is instructed that 100 shall represent a perfect prospect in his locality, and he is expected to discount this figure sufficiently to cover all damage or loss that is apparent from unfavorable weather, insects or other causes. This makes possible a mathematical consolidation and sometimes when a report is completed, two figures will represent the combined result of 2000 local estimates, the mere tabulation and examination of which might busy a considerable clerical force for a week's time.

WHAT IS REQUIRED.

In order to be of value to any interest it is essential that the meaning of every report should be clear. The public has neither time nor inclination to puzzle out the purport of any statement in itself uncertain, cloudy or befogged by technical expression. The aim is to furnish information, and the facts ascertained should be so grouped and marshalled, so condensed and presented as to require neither study nor further explanation. The story should be told in the fewest words and plainest language. In this respect I am disposed to criticise the official government report. Having been at one time concerned in its preparation, it is in a measure self criticism, but it is only by climbing upward from recognized past failures that best results are achieved. It is the custom now to present each month merely the figures of condition of each growing crop, leaving the public to draw their own conclusions as to probable final results. This leaves room for various interpretations of the monthly reports, and hardly two commercial writers will agree as to the meaning of any given report. Parties with colorable interest can and do warp the meaning to suit their views and by energetically pressing them upon the public becloud and further confuse the situation. Taking wheat as an illustration, during the past season different writers for the press, upon whose deductions the uninitiated depend, have disagreed to the extent of ten to twenty million bushels as to the crop promised by the condition published in the official report for a single month. This breeds uncertainty and confusion, the very object which official reporting is intended to prevent. In my own work I avoid this by stating clearly what interpretation I place on the facts presented, holding that with possession of the individual returns, knowledge of general conditions, and experience in drawing conclusions from the facts at hand, I am best able to properly construe the returns. It is never necessary to make a positive prediction of final results until the season is over and all facts concerning the crop collected, but it is certainly better conducive to accuracy for the reporter to construe his own figures, rather than to allow false construction and possible misrepresentation to deceive those for whose benefit the work is carried on. It will be a step forward when the official report adopts this plan, which the *Orange Judd Farmer* has proven practicable and desirable.

WHERE THE FARMER IS INTERESTED.

Passing by methods, as already touched upon, and assuming reasonable accuracy in the work, the question of the farmer's interest becomes most important. In the commercial world the necessity for accurate knowledge of probable crop results is conceded. All lines of industrial enterprise depend upon the year's harvests. The miller, the packer, the spinner, the railway manager, the manufacturer, the wholesaler, the jobber and the retailer must have this knowledge in order to plan ahead his industrial campaign, as bountiful harvests mean increased activity in all lines. Such knowledge is almost as essential in the conduct of modern business as is commercial credit. These classes representing the concentration of vast capital are prepared to learn for themselves the actual crop prospect through their own sources of information. They are not dependent upon any public reporting, but spend great sums each year in satisfying themselves in advance of harvest what the results are to be. A common illustration is the fact probably known to you all that the principal railroads, dependent upon farm products for their tonnage, each maintain a well equipped bureau charged with the duty of ascertaining in advance probable harvests along their line. Sometimes there reports are made public, but oftener they go to leading officers in confidence, and may frequently be the moving cause of the sudden waves of buying or selling of granger stocks in Wall Street, which outside operators find it so hard to explain at the time.

These classes represent the customers for the farmer's products, and in their dealings with him they at all times have full knowledge of the supplies he has to market. Unless he is equally well posted he must be placed at a disadvantage in his transactions. Individual interests here are not sufficiently large to justify the expense of collecting a private

report for personal use, and as prices and profits depend upon crop results of the whole country, and in some cases upon results of the world's harvests, the farmer must necessarily rely upon information furnished him at second hand. Present and prospective values of wheat, corn, hogs, of everything the farmer raises and has for sale, depend in large measure upon the aggregate supply in the whole country. Local scarcity or abundance, sufficient to influence the views of local producers, may be entirely offset and robbed of influence in determining values by opposite conditions in some other part of the country. Knowledge of local conditions is not sufficient to enable a grower to dispose of his crop to best advantage; he must know not only what his neighbors have raised, but what has been produced elsewhere. The price of an Illinois bushel of wheat is affected not only by what is grown in Illinois, but by every bushel made in the Northwest, in California, in far off India, in Russia and in Argentine. Those who deal commercially in this product keep in touch with every source of supply, and if our own farmers know nothing that goes on out of sight of the smoke of their own chimneys, they are in no position to hold their own in transactions with their well posted customers.

Sometimes it has been suggested that farmers should combine to post themselves, but keep the information secret. The ostrich with his head in the sand is less ridiculous. The farmer has much to gain and nothing to lose by public knowledge of the results of his labor. He could not suppress the facts if he would, and would but injure himself if he did. In the absence of public reports, compiled and issued by reliable authority, extravagant and outrageously absurd estimates would be circulated with vigor and harped upon by interested parties until the market was permanently influenced. If a bear campaign was on, the press would be flooded with sensational statements of extravagant yields until prices had been depressed sufficiently to suit the active agents. Such a campaign would be followed by one on the opposite tack and prices suddenly run up with no more substantial reason. Under such conditions of what use would secret knowledge of production be to the farmer. While he cherished his secret the damage would be done. Information must be public and general and from a source considered reliable. Under such conditions it will exert a steady influence upon the market, eliminate to some extent unreasonable fluctuations, and secure as far as possible values based upon the legitimate position of supply and demand.

DUTY OF FARMERS IN THE PREMISES.

Crop reports are based upon returns made by farmers themselves. Their accuracy depends first upon the good judgment of the men making the local returns, and to a less but important extent upon the experience, judgment and common sense of the man compiling it. A stream rises no higher than its source, and if the majority of our local estimates are radically wrong in the same direction, nothing but omnipotence could draw correct conclusions. I have no patience with the suggestion frequently made that farmers intentionally underestimate their crops in hope of advancing prices by minimizing apparent production. To believe that, is to credit them as a class with imbecility. The commercial classes that are the powerful factors in fixing values gather their own information and are not dependent upon these public reports. They cannot be deceived, because they rely upon their own sources of information. The only class then that could be deceived is the one that has no other means of securing the facts—the farmers themselves. That they would deliberately adopt a course that would deceive themselves alone is incredible. Undoubtedly there are here and there correspondents who have not studied the question, who may feel that concealment is possible or profitable, but they are few. The understatement which is frequently present is unintentional, a weakness of human judgment, and this is the compiler's province to ferret out, measure and correct.

Whenever a farmer is asked to furnish local information for a report from reliable sources, he should give his deliberate judgment, bearing in mind that he himself is the one who is to be affected by the accuracy

or inaccuracy of the final statement. It is the truth that is wanted, and every individual unit engaged in gathering the information is a factor in the final result.

VALUE OF FINAL ESTIMATES.

Time is lacking to more than barely indicate the value of reliable final estimates of crop production and distribution from the farmer's standpoint. On this point I cannot do better than quote from an article by J. R. Dodge, probably the best living authority on the general subject of American agriculture:

"It is the province of agricultural statistics to survey and classify our lands and show their productive capacity; to contrast the results of superior and inferior cultivation; to weigh the effect of overproduction in the decrease of values; and to indicate the advances of science in their application to farm industry; to aid the cultivator in keeping pace with such progress.

"A lesson of universal application may be deduced from the records of rates of yield. They show in wheat the yield of England more than three times that of Russia, and that of Illinois more than twice that of Georgia, while, strange to say, that of New Hampshire greater than that of Illinois. So it is with all sorts of crops, with the milk yield of cows and with the butter yield of milk. It means not that the difference in crop production is that of natural fertility, for often the more fertile regions produce less than others naturally less fertile. In stock it is the difference in breed and management; in crops the difference in cultivation, fertilization and rotation. Careful scrutiny and closer analysis of such facts will reveal the causes of such variation, and ordinary practical intelligence will suggest remedies."

Recorded statistics present the facts suggesting to the intelligent husbandman the necessity for such study of conditions and methods as will correct errors of practice and secure everywhere the best possible results.

The President: Our next address will be by the Hon. John M. Stahl, of Quincy, on the subject of "Rural Free Mail Delivery."

Mr. Stahl then read the following:

RURAL FREE MAIL DELIVERY.



JOHN M. STAHL.

As editor of the *Farmer's Call*, at Quincy, mail is brought to my desk four times every week day; as a resident of Chicago, mail is brought to my residence, which is five miles from the postoffice, three times every week day; as a farmer, mail is not delivered to me even once a year. If I wish to send mail when in Quincy or Chicago, I can hand it to the carrier that comes to my office or to my residence, or in either city I can walk half a block, and on solid sidewalk, to a box from which mail is taken five to ten times a day; if I wish to send mail when on one of my farms, I must go at least two miles, and over roads often rough or muddy. It seems to me that the service rendered me as farmer by the postoffice department is not as good as it should be, compared with the services rendered me as an editor in Quincy or a resident of Chicago. I acknowledge that the mail service should be the better in the city, for the

greater density of population there makes better mail service consistent with "the greatest good to the greatest number;" but in lessening the mail service to the smaller cities, the village and the farm, the reduction has been made too rapidly. I say that the stick should be whittled down, but it has been whittled down too abruptly. It is too stubby. Either the city end is too thick or the country end is too thin. I claim that it is the latter; and the justice of the demand for better mail service in the country is so apparent and indisputable that the opponents of rural free mail delivery are forced to confine their contention to the assertion that rural free mail delivery will be more expensive than the finances of the country can bear. Before I discuss that I wish to note, in a few brief sentences, a matter of the greatest importance. As this, or any, nation advances in civilization, a constantly increasing percentage of population must dwell in cities. Agriculture supplies very nearly all the wants of the people just emerging from barbarism; but as it becomes more and more civilized, wants increase in number and become more complex in character; better dwellings, clothing and utensils are required; and to supply these increasing wants there must be more and more manufacture, commerce and art, hence more and more people, comparatively, in cities. This is an inevitable shifting of population; it is useless to complain of it. Men congregate in the cities as the waters assemble in the seas. Both lose in purity and both gain immeasurably in power. The pebble deflects the tiny stream; the ocean defies the powers of mankind. One man or a few men are weak; the millions in our cities are very strong. Farmers can meet this constantly increasing strength due to constantly augmenting numbers only by effective organizations; and it is true of farmers, as it has always been true of all, that effective, permanent organizations cannot be maintained without the means of easy and quick communication. There will never be those organizations that alone can save farmers from sinking lower and lower relatively to other classes in the plane of living, until there is rural free mail delivery.

The opponents of rural free mail delivery seek to discredit it by assuming that it is to be extended to every farm at once. Nothing of the sort is contemplated. It will not be necessary to have free mail delivery to every farm at once any more than it has been necessary to have it in every city at once. At first we hope for free daily delivery in the more thickly settled farming regions; and in more sparsely settled regions the extension and betterment of the star routes, and the putting up of delivery boxes along and near them. This would give satisfactory free mail delivery to two-thirds of the farmers of the country; and the service could be extended as rapidly as circumstances permitted. This would probably not add anything to the net expense of the postoffice department. Mr. Wanamaker expended the money appropriated by congress to test free mail delivery, and he says of the result—I quote from his famous "Letter in Response to Senate Resolution of January 13, 1892:"

"While an allowance for natural growth equal to the average annual increase in earnings has been made, the business of these experimental offices has further increased to an amount slightly over the additional outlay for free delivery."

That is, although the experiments were not carried on long enough to get the most favorable results, rural free mail delivery more than paid for itself, in increased business due to it. The same result would doubtless follow from free delivery to farms in the more thickly-settled farming regions; and elsewhere there would spring up a telegraph and express messenger service that, with the commissions from purchases made at the town from which the carrier started, would yield the carrier such revenue that he could greatly reduce his charge for delivering the mail; and this service, while greatly reducing the cost of free delivery, would be of much benefit to the farmer, bringing the telegraph, express and city store to his door. Then many incapacitated for work bringing high wages could deliver mail. I know of a cripple that carries a star route four miles long every day in the year for less than one hundred dollars. Probably in the greater number of townships the saving from the allow-

able discontinuance of postoffices would more than equal the cost of free delivery. I have in mind a township, purely agricultural, in which there are six postoffices. All but one, situated near the center of the township, could be abolished and two boys on ponies could deliver mail from this postoffice to every house in the township every day; and the saving from abolishing the five postoffices would more than compensate the boys. You see that my claim that free daily delivery to two-thirds of our farmers and better star-route service to the others would cost little, if anything; that is, would add very little, if anything, to the net expense of the postoffice department, is quite reasonable indeed.

Though this did cost something, the cost can be saved out of the expenditures of the postoffice department without any detriment to the postal service. Bissell and Wilson, you know, have refused to expend the annual appropriation of \$20,000 for experiments in free delivery among farmers. They say that this appropriation is optional with them, and Mr. Jones, in whose division belongs the work of expending it, says he has not time to expend it; but he found time to expend about that amount the past year in an espionage on the letter-carriers of the country, that was not contemplated in the postoffice appropriation bill; and the expenditure of the appropriation for experiments in free delivery among farmers is *not* optional—the postoffice appropriation bills say “of which the sum of \$20,000 *shall be* expended;” and this language is used after a spicy discussion by Congress of Mr. Bissell’s nullification of previous appropriations. Now, each postoffice appropriation bill for several years past has contained an appropriation the expenditure of which is optional with the postmaster-general, and both Bissell and Wilson have found time to spend every cent of it. The item reads—it is the same in all the bills: “For necessary and special mail facilities, on trunk lines, \$196,614; *provided*, that no part of the appropriation made by this paragraph shall be expended unless the postmaster-general deems such expenditure necessary in order to promote the interest of the postal service.” As you may know, this money goes to three or four railways to expedite the mail between Springfield, Mass., and New Orleans, and it has been shown in the debates in Congress that the railways actually got the mails between these two cities in ten minutes less time before they got the money than since. Mr. Bissell spent every cent of these appropriations available during his term of office; and yet he stated in his report that it did not in any way better the service. Postmaster-General Dickinson condemned the principle of this appropriation as demoralizing to the service—see his annual reports. Postmaster-General Wanamaker said in his last annual report that “the special facility allowance has for some years past been the source of much annoyance to the department, and has hampered the best interests of the mail service.” He says further that “no postmaster-general ever recommended an appropriation of this character.” All this appropriation might be applied to rural free mail delivery. But that would be to the benefit of farmers, and not railways; and to do anything of that sort is more than can be expected of the present administration of the postoffice department.

An even greater saving might be made out of the annual appropriation of \$300,000 for “mail depredators and mail inspectors,” and which is known in the postoffice department as “slush money.” That sufficiently reveals how it is used, and also that five-sixths of it could be saved without detriment to the postal service.

But these savings are trivial compared with what might be effected. The last postoffice appropriation bill carried an appropriation of \$26,500,000 to pay the railways for carrying the mails. In discussing this item Mr. Dockery said in the House, “There is no competition among railways for this business.” Mr. Pepper said in the senate: “Mr. Wanamaker declared that carrying the mails cost the people of the country three or four times what the service was actually worth. In a conversation with him once I asked him why he did not propose legislation, or Congress did not act, having such information, and his reply was that the railway

companies of the country see to it that their representatives in Congress in both branches take care of the interests of the railways, and that it is practically impossible to procure legislation in the way of reducing those expenses." That was well shown in the last session of Congress when an amendment to reduce by ten per cent the compensation to railways was promptly voted down. As you may know, the postoffice appropriation bill fixes the maximum rate that may be paid the railways; and the postmaster-general does not try to get the service for less—in every case he pays the maximum rate. The rent the postoffice department pays for postal cars equals the cost of their construction every eighteen months; but an amendment looking to the reduction of this expense was also voted down. It is but justice to the railroads to say that they stoutly dispute Mr. Wanamaker's assertion; and I must say frankly that I do not blame the railways for getting all for their work that Congress and the postoffice department will allow them. That is human nature. Nor do I blame the railways for keeping their representatives in Congress to look after their interests; that is shrewd business policy. I wish that we farmers had as much business sense. We must do as the railways and others do—send our representatives to Congress. Your Governor told you some plain truths to-day. You must stop whimpering and elect to office more of those identified with agricultural interests. Would you send some one that knows nothing about farming out to feed your hogs or plow your potato-patch? No, you would not. Then why do you send him to legislate for you, where millions are involved?

At a banquet recently given by the Frank B. White Advertising Agency, I heard Mr. J. A. Montgomery, superintendent of second-class mail at the Chicago postoffice, say in an after-dinner speech: "Sixteen million, nine hundred and ninety thousand dollars go into the rat-hole every year for transporting second-class mail matter on the railroads, and the total loss annually to the government for handling this class of matter is about \$23,000,000. Now, it is notorious that every day the postoffice handles tons of this second-class matter that is in no wise entitled to the low postage rate that it enjoys. A common-sense interpretation and just administration of the postal law would make one-fourth of the matter now paying the rate of postage that is only one-eighth of the cost of handling it pay a rate that would meet the cost of handling it, thus effecting a saving of \$5,000,000 annually—more than the net cost of rural free mail delivery; and this would relieve legitimate, honestly conducted publications of a very unfair competition, while it would probably exclude from the mails much matter that circulates to the hurt of the morals of the people.

It is noticeable that while the postoffice department is so certain, along with the other opponents of rural free mail delivery, that there can be no money to better the mail service among farmers, there is money to better the mail service in cities. I have time for only one example, and will choose Chicago, the city with which I am most familiar. It is impossible to get as yet the official figures showing the improvement in the mail service of Chicago during the year 1895, but the official figures show that at the beginning of 1894, there were in Chicago 12 carrier stations, 24 sub-stations, and 70 stamp agencies; at the close of that year, 22 carrier stations, 15 branch postoffices, 54 sub-stations, and 190 stamp agencies. Thus while these mail facilities were more than doubled in one year in Chicago, there was no money for any improvement whatever in country mail service. During the year 1894, residents of 55 square miles of territory in Chicago were given free mail delivery, but there is not money to give free mail delivery to even one mile in the country. It is certain that the mail service of Chicago has been much improved during 1895—only last month another daily delivery was added in the down-town districts; almost every day one can see additions made to the 2436 mail boxes there were at the beginning of the year; only a few weeks ago mail cars were put on some of the street railway lines. Nor is this improvement confined to Chicago. For example, it was brought out by Mr. Quigg, of New York, in the debate on the last postoffice appropriation bill, that at one stroke the salaries of 500 clerks in the New

York postoffice had been increased. For that matter the last postoffice appropriation bill contained this item, "For salaries of clerks in post-offices, \$10,100,000." The expenditure for clerk hire for the preceding year was \$8,759,000. Thus there was money to increase in one year by \$1,341,000, or about 16 per cent, the compensation for clerks in post-offices—practically all in the larger towns and cities; but not a dollar for better mail services in smaller towns, the villages, and on farms. I do not blame the cities for getting the best mail service that they can. I think that Postmaster Hising is entitled to only commendation for bettering all he can the mail service of Chicago. We should see to it that men that would look to the interest of rural people as Hising and Wilson look to the interest of city people, are put in positions where they can have the power necessary to secure for us that large share of postal service improvement that is justly due us. It would be as foolish as unjust for us to condemn the cities or their excellent officials; the thing for us to do is to take our fingers out of our mouths and look out for our interests at the caucus and at the polls.

Do you know just how poor comparatively is our rural mail service? England has had rural free mail delivery for a hundred years; and to-day in all the vast Indian empire, I care not in what jungle he may live, there is not an individual to whom his mail is not delivered at his door. Japan, that is just emerging from barbarism, has had rural free mail delivery for three years past. China, the most backward nation on the globe, of whom we derisively speak as being three thousand years behind the times—even China has a rural mail service thrice better than ours. Don't you think that you are a little better than one-third as good as a Chinese coolie? I don't know whether you do or not. If you do, why don't you insist on better rural mail service? The manager of a theatre in one of the largest cities of Illinois recently said to me, "I can tell a farmer every time he comes into the theatre." "Why," I said, "I thought now our clothes and hair were cut about like other people's." "Oh, it is not that," he said, "but when a farmer comes into the theatre he sneaks in as if he had done something mean and criminal, and he lets his seat down as quietly as he can and gets into it as far as he can, so no one will look at him." That made me so angry that I risked getting whipped—I was where I couldn't run very handily—by saying that I believed that it was an ungodly lie. "Well," he said, "if you don't believe it, just go in the theatre and see them come in." I did that, and I had to acknowledge that he told the truth. The merchant, the mechanic, the seven dollar a week clerk, even that most pitiable and contemptible of all creatures that God or something else ever made—the dude—walked in as if they had a right to be there, as they had, and as they did not fear to look honest people in the face, while the few young farmers that came in—I knew them,—honest, industrious, noble young fellows—they came in just as my friend had said they would come. This reveals just the trouble with the farmers. We lack self-respect. How can we expect others to respect us when we do not respect ourselves? The city has much the better mail service and it is being constantly improved, yet we are too indolent or too cowardly to insist upon better mail service in the country. Why, our city cousins are kinder to us than we are to ourselves; when my little article on rural free mail delivery appeared in a recent number of the *North American Review*, to my own knowledge more than four hundred city papers commented on the article and endorsed it. The farmer is as good as anybody, and usually quite a little better. He should eat at the first table. All other interests rest on agriculture.

He that assists in that mysterious process that takes so much potash and lime, carbon and nitrogen, and forms them into the robe of green that hides the grimness of old earth into the golden grain that nourishes the hand and brain of toil, into the flower, that charms the eye of the child, the old, the sick, of all—he labors in closest harmony with the heart-throbs of nature and works best with the overbrooding God. And when to his work is added the charm and power of daily communication, and

intimate contact with the affairs and thoughts of men, not only will our life as farmers be fuller and finer, but our country will have added power and glory in every land and on every sea.

It is on this ground that I would make my final appeal for rural free mail delivery. No one doubts that it would be for the public good, that it would add to the commonwealth, that it would augment the glory of the nation. Some centuries ago, in merry England, there assembled companies of men, strangely habited, and moving from place to place, to seek truth and to gain learning. Those from the north and those from the south were not always of one mind and sometimes they would cast aside the cap and gown on the green English turf, and draw the sword. From those companies of brothers, sometimes bitter enemies, has grown the grandest institution of England—the University of Oxford. Some thirty years ago, in this blessed land, those of the north and those of the south threw aside the axe and the scythe, the pen and yardstick, and drew the sword. On many a spot where to-day the air is filled with the hum of industry and the very sunlight pulses with the warmth of friendship, have been the horrid sounds and scenes of war. But out of it all has come a stronger government, a prouder people, and, thank God, “a union, now and forever, one and inseparable.” “Fair seemed the old, but fairer still the new.” It has required but the recent bugle call of our President to show that we are now one people, with one government, one destiny, one flag, and one glory forevermore. Out of the blackness of desolation, with fire and hail, and wind of tempest, the God of nations has led us into the fairest opportunities that ever blest a people. In that matchless memorial poem Tennyson has exclaimed—

“O Earth, what changes thou hast seen!
Here where the long street roars hath been
The stillness of the central sea.”

In truth, by the slow processes of nature wondrous changes are wrought on this old earth of ours; but how much more wonderful the changes wrought in the past thirty years by the hand of man. The fields that war had ploughed and seared, the far vaster domains in which nature had always reigned alone—with what a royal harvest do they smile to-day! A harvest of cities and farms, of churches and schools, of wealth and enterprise. Whose hand prepared the ground and sowed the seed and stirred the soil that this harvest might grow? It was the farmer's hand. He most of all and first of all has made this nation what it is. And if we are to go on, growing more and more in wealth and power, there must be as fair a field for the farm as for the the shop or mine. Rural free mail delivery is essential to that equilibrium of the nation's industries that is necessary to the nation's health. Its advocates ask not that something be taken from others—we ask only for “a fair field and no favors” for the farmer. We have no quarrel with city people. I wish our city cousins distinctly to understand that. We would not take a single stone from their lofty buildings or snatch a thing of grace and beauty from their homes. We would have every spindle hum, a merry fire at every forge, and every workman's pail well filled. We would have an American marine, that would put in our coffers the hundred million dollars we pay each year to foreign bottoms, and a navy strong enough to protect it; and backed by the spirit of our fathers, that would declare that on no unwilling people shall there be trans-Atlantic dominion, or domination, or domineering on this American continent. We would—and God surely has it in keeping for us—that all our dreams were wrought in forms of immortal beauty in bronze and marble, and that a Phidias and a Michael Angelo of the New World might carve the glory of the Republic on the tablets of the ages. We that work for rural free mail delivery labor for a more prosperous country, governed in wisdom and steeped in patriotism; a country in which the richest dare not be arrogant, and in which the poorest need never lack for bread; a country that shall so stand for progress and liberty that

whenever, near our coasts or afar, men may look up and strive for better things and for liberty, they may look to our flag, as to the emblem of that which makes men brave and free, the dread of tyrants and the hope of man!

The President: The next address will be by Mrs. L. G. Chapman, of Freedom, Illinois, on the subject of "The Sunshine and Shadow of Farm Life."

THE SUNSHINE AND SHADOW OF FARM LIFE.



MRS. L. CHAPMAN.

side of farm life; but on the other hand, the man who is systematical and methodical in management and keeps abreast of the times in theory and practice, finds little time for recreation during seed time and harvest, but does not consider it drudgery. He may be unsatisfied in the niche in which he is placed, because he cannot reach his ideals, and yet not be dissatisfied with his vocation. There is nobility in honest labor, the nobility that brings independence and liberty. Modern inventions in machinery, agricultural colleges, the agricultural press; which is an important factor to-day in the promotion of progressive farming, farmers' congresses, farmers' institutes, and whatever educates the farmer to elevate his calling to a higher plane, have changed the conditions of life on the farm very materially in the last double decade. But we have not yet scaled the heights from which Bellamy looks backward from the twentieth century, where farm life would be shadowless and the sunshine eternal. City guests who take an outing in the country and visit their country cousins are apt to think life on the farm very sunshiny—one continual round of lazily swinging in a hammock and subsisting on fresh laid eggs and spring chicken, never dreaming of the anxious hours that intervene between the new laid egg and the spring chicken. Because it is a spring chicken, it does not follow that it springs spontaneously from the egg to the frying pan. The poultry raiser well knows that many shadows fall across the path of the early broiler before it graces the dinner table. No, farm life is not all sunshine, neither is it all shadow; it is not all poetry, nor all prose, but the shadows only make

Mrs. Chapman: Mr. President, ladies and gentlemen, in painting the sunshine and picturing the shadows of farm life, I have reached out somewhat beyond the limits of the farm, and if the lights have been touched with colors too gleaming, or the shadows penciled with too somber a hue, I have not seen through a glass darkly, but face to face. This is no imaginary picture; no fancy sketch; no hallucination of a pessimist's or optimist's brain; for these fragmentary bits of experience have been gleamed from a lifelong contact with actual farm life.

There are many phases of farm life and various ways of looking at them. Many farmers see nothing but drudgery in their work—an endless circle of every-day life—a monotonous treadmill—only that and nothing more.

They understand the eight hour system, as applied to farm work, to mean eight hours' work before dinner and eight hours' work after dinner, and, without system or management, they prove their understanding to be correct. This is the shady

the sunshine seem the brighter by comparison, and the prosaic pages of farm life are threaded here and there by a line or two of poetry that brightens them up, as a glint of sunshine lightens a cloudy day, if the farmers only had the time to read them carefully. Those who are blest with an artistic nature, see, in the beautiful undulating prairies and shadowy groves, in the azure of a June sky, flecked with silvery bits of clouds floating airily along, a more beautiful landscape picture than world-famed artist fingers have ever achieved.

The lover of music hears in the rich notes of the Southern mocking-bird, trilling to his mate on her nest of silvery moss-lace among the branches of a stately live-oak tree, in the far Southern clime, where the air is heavy with the rich perfume of the pomegranate, crimson and gold, or in the dulcet tones of our own homespun brown-thrush, sounds that rival the trained voices of Nilsson or Patti. But is there any poetry about the pert, saucy English sparrows that swarm round our granaries? For, by some freak of nature, these imported pests are granivorous and not carnivorous, that they might benefit the farmer by destroying insects and worms. Is it poetry? the farmer repeats, as he tears down their nests from above his sliding barn-doors, daily during the nesting season. Cheerful robin red-breast, around thee tradition has thrown a halo; for upon thy red breast a drop of the crimson blood from our Savior's brow has fallen as thou didst pluck a thorn from the platted crown. And yet tradition sinks into oblivion as your choicest cherries disappear before the voracious appetite of this little thief.

'Tis a prosaic view of farm-life, that of Joaquin Miller, when he says:

" 'Twere better to be content and clever
In tending cattle and tossing clover,
In the grazing of cattle and growing of grain,
Than a strong man striving for fame or gain."

Not a very sun-shiny view for a poet to take. He sees no fame, no gain—nothing but the bare, shady fact that a farmer might be a good hand to tend cattle and pitch hay, and should be content with his lot, and not indulge in higher aspirations. A farmer may be endowed with an artist's soul and a poet's fancy, but his environments prevent the indulgence of his poetical and artistic nature. He may gaze with rapture upon the fresh magnificence of his clover-field, whose emerald billows waving in the gentle zephyrs are thickly studded with dainty purple blossoms, hovered over all the day long by gold-dusted bumble-bees and fairy-like humming-birds, sipping sweet nectar from the delicate goblets that gracefully turn heavenward for the sunshine to pour in its golden wine. Yet relentless fate compels him to bring forth the cruel guillotine and deliberately behead the lovely flowers and leave them to wither and die on a bloodless battle-field; for a farmer must make hay while the sun shines. Tho' the sweet odors of new-mown hay may delight his æsthetic sense of smell, he finds nothing poetical in pitching it upon a wagon or elevating it into a barn, with the mercury well up in the nineties. Tho' the ripening fields of grain waving in the golden sunshine may resemble the treasures of gold hidden by Rider-Haggard in Solomon's mines, when harvested, threshed and sold bring the owner but a hint of the gold of which they were a fac-simile.

Millet, with his great painting, "The Angelus," may have immortalized the gathering of the winter-store of vegetables, yet the farmer finds little poetry in bending his back for hours to pick up the crop of potatoes that he has waged a hand-to-hand struggle with the Colorado bug to secure. In vain he listens for the Angelus bell to ring that he may rest his back while he says his prayers or counts his beads; but no bell rings—not even the dinner-bell.

Gray says: "Now fades the glimmering landscape on the sight, and all the air a solemn stillness holds." How restful then to lie at one's ease in the shadow of some umbrageous old oak and read and think and dream. "The lowing herd winds slowly o'er the lea"—so they do, so

slowly that you needs must toss aside your book and mount your saddle-horse and with the aid of a persuading cattle-whip help them to wind. Poets have sung of the mild-eyed kine, calmly lying at ease chewing the cud of contentment; but there is nothing poetical or even sun-shiny in trying to milk the gazelle-eyed "bossy," on a hot summer eve, as she wages war on the hungry horde of flies that are trying to drain her life-blood.

There are slanting beams of sunshine that fall across the path of the farmer and may be called blessings—in disguise. One of these is the *deep interest* taken in their welfare by professional men. The learned city divine will leave his study to address a farmers' meeting and tell what he knows about farming. He may not know to a certainty whether a farmer digs his hay or mows his potato crop, and is not sure whether cabbage-heads in the country stand on one leg or two; but he does know that the yellow-legged chickens grow on the farm, and as he has a friendly interest in this branch of agriculture, he is willing to give the farmers gratuitous advice. The lawyer will close his musty tomes and cheerfully lay aside his briefs to advise a farmer how to build a line fence, well knowing this to be the most potent cause of litigation among farmers. The millionaire will graciously consent to address a farmers' institute and explain just how to get rich on eighty acres of land. And finally the welfare of the *dear farmer* attracts the attention of the editor of the great partisan city daily, who sits in his sanctum, with pedal extremities elevated to an angle of forty-five degrees, and between puffs from a costly Havana dictates his editorials to his type-writer, and thinks farmers must be very stupid "to raise corn, to feed hogs, to buy land, to raise more corn, to feed more hogs, to buy more land," and so on in this continuous circle, year in and year out. He thinks what these "calamity-howling" farmers most need is good sound advice, and with a lavish hand he deals it out in large doses, labeled "to be taken before shaken." He says farmers should be equally well educated as those in the professions if they would make farming a success, as the farmer should know the nature of the soil he cultivates, the requirements of different crops and the need of diversifying agricultural staples; then closes with the time-worn advice to keep the boys on the farm, where young blood, brains and muscle are needed. Theoretically this advice is grand, but practically it is of no great value to the farmer, for in order to secure the education necessary for the boys to become scientific farmers we must send them to the city schools. There is a fascination to the farm-boy about life in the city. The pleasures of society, the benefits of lecture-courses, public libraries, etc., besides the better pay for fewer hours of work and the greater opportunities offered for those who have aspirations. The days of Cincinnatus are past. Farmers of to-day are not often called to leave the plow to occupy a seat in congressional halls. These are reserved for the legal profession. In consequence of these greater advantages to be had in the city, few of the boys return to the farm after graduation.

When the road to fame leads direct from the farm without a halt at Blackstone station, boys will have one less incentive for leaving the farm.

The preponderance of lawyers in our U. S. Congress, and the absence of farmers, is an object lesson before the whole country that farmers have not their pro-rata share of representation in our legislative bodies.

It is an axiom that agriculture is the basis of all wealth, and that farmers produce the greater part of the wealth of the country.

If they had the same rights and privileges—were equal before the laws of the country with other classes, would they not amass large fortunes?

Does any one know of a millionaire farmer who made his money by tilling the soil? I never knew or read of one.

And yet the number of millionaires in the United States is rapidly increasing, and the wealth of the country is fast concentrating into the hands of the few. These are actual conditions and not theories, Mr. Editor, that confront the farmers, and something more potent than sugar-coated advice is necessary to change them, but it is they who must deal with them, and not depend on some disinterested person for advice or assistance.

The farmers hold the balance of power, but their lives are shadowed by a lack of that perfect organization that would enable them to control their own business and elect men as legislators who would truly represent the agricultural interests of the country. Nothing of importance is accomplished without organization. Capital is thoroughly organized and is constantly gaining in strength by concentration. This concentration of capital is a menace to a republican form of government, and necessitates the organization of the laborers and farmers. The laborers in the cities working a certain number of hours per day, have leisure in the evening to meet with their friends, and naturally ways and means for bettering their condition are discussed, and trades unions are the result. But the inherited tendency toward isolation, transmitted from generation to generation, among the agriculturists, is a great stumbling block in the way of perfecting an organization. And it was less than thirty years ago that the first farm organization came like an inspiration to the farmers—a burst of sunshine breaking through the clouds, scattering wide the shadows and bringing light out of darkness. It was born of the necessities of the times. After the close of the war a representative of the agricultural department at Washington was sent on a tour of investigation through the south to learn in what way agriculture could be encouraged. After some months of travel and study of conditions, it was thought best to form some sort of an organization that would unite the people of the north and south and build up the ruined homes, restore the devastated country and revive the broken spirits of the agriculturists of the fair southland of our nation. It must be an organization above and beyond sectional and party lines—one that would unite in one grand brotherhood, connected by the “strong and faithful ties of agriculture,” and by the mystic tie that binds together all whose interests are identical—a society that knows “no north, no south, no east, no west.” Upon this broad basis the Grange was founded. Although it is yet but a broken chain, with here and there a missing link, it has proven that its founders “builded better than they knew.” Not only did it exert an influence in uniting the people of the north and south, but its links are scattered from Maine to California, and from the northern boundaries of Canada to the sunny southern clime, imperceptibly linking together the interests of the farmers with an invisible golden cord. As an educator to the farmers it has been a power.

Organization is a concentration of power. When complete it represents a perfect system of mechanism, but like a storage battery, it is of little use until connected with the dynamo of coöperation. These are long dictionary words, but the meaning is so simple—to combine and work together. Organization is not a fad. We can go way back to Exodus, 1491 B. C., and find Moses founding an organization among the children of Israel for the purpose of throwing off the Egyptian yoke. Coöperation is undeniably one of the specific objects of organization among farmers, but the platform of the Grange teaches that its aims and objects are not alone that its members may “meet together, work together, buy together and sell together,” thus securing for themselves the legitimate advantages of one of its underlying principles. These are only shadows compared with the sunshine of developing a higher and better manhood and womanhood. When we have true and honest statesmen in our legislative halls, men upon whom there is no price, we will know the meaning of a “government of the people, by the people and for the people.” Then, and not till then, will a party platform mean what appears on the face of it. The flexible platforms of the political parties of to-day are so carefully worded that they appear broad enough for everyone to stand side by side. The leading political questions, tariff

and finance, are there, and apparently in such plain sight that the way-faring man, though a fool, may read as he runs. But a close scrutiny will show the tariff plank to be so arranged in the sunshine that it casts its shadow across the financial plank in such a manner that the monometallist and bimetalist see it in the same light, each believing it to read favorably to his views.

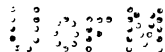
Perhaps this is politics, and I have overstepped my privileges as a woman, for women are not recognized among the politicians. A politician in the general acceptation of the term I certainly am not. I know nothing about pulling the wires that make the political machinery go. I never marched in a procession or carried a foul-smelling torch in my life.

And yet politics considered as the science of government, as Webster defines it, is of as much interest to woman as to man. She has a right to a knowledge of the laws she must obey, although to-day she has no voice in their construction or hand in their execution. There is a new era dawning for the women of the United States. Its star no longer faintly glimmers above the horizon, for it is coming nearer and nearer, growing brighter and brighter, rising higher and higher. Let it not find them unprepared to fill the station to which they may be called, but like the "wise virgins," with their lamps well filled and carefully trimmed, faithfully discharging the duties that are their's by inheritance—to guide the first tottering footsteps and teach the prattling tongue to lisp its first broken sentences, and to make impressions on the plastic mind and confiding heart of the little one that time can never efface.

The seeds of truthfulness and honesty, qualities necessary to the building up of the characters of our statesmen, should be sown in the receptive minds of the children in early life, and the "hand that rocks the cradle" is the hand to which this important duty is assigned by the laws of nature. Under our republican form of government, the poorest mother in our land may rock to-day in the rudest of cradles the future president of the United States. In recognition of this truth, every mother should as carefully train the mind of her boy and build up his character as honorably as though he were a prince of the realm to the manor born. She should teach him by precept and example to be upright, high-minded, truthful and honest. When she has reared a son of whom it can be said, as it was of Sumner, "no man dare offer him a bribe," she has served her country better than if she had cast a ballot regularly for a partisan politician.

We hear much in these latter days of the nineteenth century of the coming woman. She has not yet reached the farm. When she does, there will be a revolution in the kitchen, for she will prepare her dinner of savory viands by the simple pressure of an electric button, and dynamos will wash her clothes and bake her cakes and pies and rock the baby's cradle, and feed it when it cries.

The cartoons in the daily papers herald her coming, but picture her under a cloud, and the witticisms of the press cast a shadow over her. God grant that when she arrives she will come forth into the broad sunshine of life enveloped in all her womanliness, and politically man's equal, she will find her greatest glory in the knowledge that she is not a new woman, but the same uncrowned queen that has ruled the world for ages—the mother of a race of men.



The President, Professor Davenport, Dean of the State Agricultural College, University Illinois, will now address us on the subject, "What the State Agricultural College is Doing for the Farmers of Illinois."



Professor Davenport: Mr. President, ladies and gentlemen, the hour is getting late, and very many of my audience no doubt desire to go, but I will guarantee that the janitor will wake you up in time for closing, so no danger need be apprehended in that respect.

THE COLLEGE OF AGRICULTURE OF THE UNIVERSITY OF ILLINOIS.

(By Prof. Eugene Davenport, Champaign, Ill.)

The College of Agriculture of the University of Illinois is rapidly broadening the policy of its organization. It is stepping out upon a broader plane of activity for two reasons; first, because the true aim of agricultural education and the real needs of the rural classes are becoming better understood; and second, because the exigencies of the times demand it. The college must develop. It cannot stand still. The world moves. It must move with it. It must have a plan. It must look to the future, not the past, and it must offer to young men and young women such training as they shall

PROFESSOR DAVENPORT.
need for rural life in the coming generations.

There are as many theories of what should constitute a course of agricultural instruction as there are men. Probably no man has yet correctly solved this great new problem, for it is new, this attempt to educate the farmer. We shall make many mistakes, but the question has passed from that of "Shall we educate him at all" to "How shall he be educated, and what does he need?"

Without reciting all the conflicting views on this great question, it will suffice to say that the following are some of the more prominent and commonly held:

(1). That the exclusive aim of the College or School of Agriculture should be to impart technical information and give technical training. This is an old and extreme view, founded on the assumption that agriculture is not a learned profession, and that farmers are to all intents and purposes peasants and will so remain. This is the all-pervading idea of the German schools of agriculture and it has tinctured many American institutions.

(2). Diametrically opposite is the school that trains men to become expert investigators into agricultural problems. They are really students of applied science, not students of agriculture for its own sake. They have served agriculture well, but the world needs but few such men, and agriculture would languish in the coming days of fierce competition and high culture in spite of them.

This class of students early characterized our American Universities and were almost their only students in agriculture. There came to be a universal feeling that these institutions were not reaching the people and were not ~~satisfying the~~ proper need. The so-called "short courses" were established in nearly all our universities. These were by common consent information courses on technical matters and almost entirely devoid of the educational element. It was a swing of the pendulum to

the opposite extreme. It was an introduction of the German idea of an agricultural manual training school into our great universities. It was a practical surrender of the situation and a tacit admission that what the farmer really needs is not education at all but technical training.

This idea once rooted in an institution of higher learning degrades the subject of agriculture, for honors are either not taken at all, or else cheaply won, and the students naturally despise the agricultural courses. This is about the situation today in most of our universities.

This is not because the farmer has no taste for learning, for the mass of our students come from the farm. They are therefore not to be enticed into agricultural courses because they are short, cheap, or easy. They have a keen sense of the eternal fitness of things, and if agriculture is to flourish in our universities it must be held up to university grade.

And is this an unnatural thing to do? No, the College of Agriculture of the University of Illinois believes that the possibilities of the American farmer have not yet been dreamed of, that the influence he is to exert in the affairs of this nation in coming generations is not yet suspected, and that his education for the position he is to occupy in a republic of thinking and independent men is a realm of thought and discipline not yet explored, if indeed its boundaries are yet discovered.

We have an abiding need for an educated populace, for on this our institutions and our government depend, and our great institutions of learning should be very wary indeed against turning the power of their machinery into the manufacture of an American peasantry.

The University of Illinois believes that the farmer is also a man, and moreover above all others the producer of men—*men*, I mean, not simply animated beings walking erect.

It believes that these men ought to be educated, not only for their own good, but for the public benefit. It believes that the farmer more than any other, except the leisure class, may enjoy the benefits of a liberal education, wherefore agricultural education in the best sense is something more than technical. The able farmer is an employer of labor and a manager of enterprises. But the student who takes a course in technical training does so with the expectation of serving another. He fits himself to serve. This the farmer cannot afford to do. He can afford to fit himself to live, and to grow old gracefully as the harness drops off strap by strap and not feel the tightening girth of the competition of the young.

The University course in agriculture is arranged to this end, to secure to the student a liberal education of a scientific character and with a strong pervading current of rural affairs distributed from the freshman to the senior year. It requires a little more than one-third of the time in science, a little less than one-third in agriculture or horticulture, and leaves one-third of the time for culture in such lines as the student shall elect. It is designed to insure thorough instruction in agricultural questions on a basis of the sciences, and to provide such opportunity for other lines as shall make the student feel at graduation that he has had a really good and satisfactory course. Moreover it will require hard work, and this course is not intended as an asylum for incompetents from the whole university.

The following steps have been taken toward the honest application of the spirit and belief I have indicated.

A division of so broad a subject has been recognized, and I was not elected "Professor of Agriculture." On the contrary a department of Animal Husbandry has been established, and that is my professorship. A new and commodious barn is being built to accommodate the horses and the tools. The old barn is to be refitted as a cattle barn. Exceedingly fine specimens of the Shorthorn, Jersey and Holstein breeds have been purchased at long prices from the best breeders of the United States regardless of distance. A few choice sheep are authorized and the

money is ready for their purchase. A start has been made in dairying. We have in the two towns, Champaign and Urbana, a larger trade for pasteurized bottled milk than we can possibly supply, although we buy more milk than we produce. This enterprise was started as an experiment and to bring ourselves into relation with the people who are our neighbors. It has proved exceedingly pleasant and financially very profitable.

We offer this winter for the first time in Illinois dairy instruction to regular students and to the students of the Winter School of Agriculture.

We conduct for the winter term what is called an agricultural school. Its purpose is totally different from what has been previously indicated as the aim of the regular university course of four years.

It is looked upon as a means to an end, as one method of distributing knowledge, of cultivating respect for exact methods, of stimulating desire for higher learning, and of benefitting many individuals who would otherwise go without what is so easily had. It is at once an advertisement, an educator and a benefactor, but is not to be confounded with the real university work in agriculture.

Many advance steps yet remain to be taken. There is no disposition to inaugurate a boom, but what has been done is with reference to future advancement. We need many things. I will name some of them. We need a fully organized and equipped dairy department with a recognized head in charge. We have started in that direction. We need a department in soil physics and management, with a competent instructor, for agriculture has grown so big that no one man can know any great portion sufficiently well to give instruction of a high order. There is far more difference between field culture and stock breeding than between botany and chemistry, yet these are separate professorships. We have started the principle of division of the subject and fixed the policy of development.

We need equipment; material for illustration. We have some that is excellent, but shall need much more. We need a building for offices, laboratories and class rooms. At present we have nothing except as we are accommodated in other buildings at the disadvantage both of other departments and of ourselves.

Will you by your sympathy and influence help us to get these things? Will you help us to get a building for agriculture as we have for engineering and for science?

Will you not give us an Agricultural Hall with dairy annex, and help to equip agriculture as the subject deserves?

We need students. Our young men need to be set right in the comparative advantage of independent business and of salaried positions. The sons of our able farmers can do better than to plunge into the fierce war of competition for positions bound to disappear with advancing age, or before the better equipment of the generation next behind.

The College of Agriculture will be what you of the State make it. If I or the next man prove incapable to develop, it get one who is. I beg of you see to it that your college is developed till it occupies a position which is second to none other. No other kind of college can adequately serve the needs and represent the interests of this the greatest agricultural state of the Union, and the greatest agricultural area the sun shines upon.

The President: Professor S. A. Forbes, also of the Champaign University, will now favor us with an address upon the subject of "Insect Pests Upon the Farm."

This paper had been assigned to a place in the programme for to-morrow, but owing to the inability of the Professor to be with us to-morrow, he will now favor the Institute with his address.



PROF. S. A. FORBES.

Prof. Forbes: My paper is rather long, and I may state that it is only the difference between my reading the paper to-night and somebody else reading it to-morrow, or your reading it hereafter in print for yourselves. Perhaps it will not pay you to wait to hear it now, as it will take quite forty minutes to deliver it, reading all the time.

The President: It is still not too late, and it seems to be the wish of the audience to hear it.

The address was then read, as follows:

PROGRESS IN ECONOMIC ENTOMOLOGY.

By S. A. Forbes, State Entomologist.

The problem of the control of insect injuries to crops is a far more comprehensive, important, and difficult one than we are at all accustomed to believe. It is now really the most important and urgent problem immediately related to the agricultural interest of this State, and the measures we are taking for its practical solution are utterly inadequate to their end. Let us take the chinch-bug as an example. Here is a cause of loss to agriculture in Illinois which may well be compared to a great hole in the side of a ship at sea. Eight of the principal agricultural states of the Union suffer enormous losses from this insect, on an average about three years out of every ten, namely: Indiana, Illinois, Wisconsin, Missouri, Iowa, Minnesota, Kansas and Nebraska, and yet all the study of the chinch-bug in all these states together is not more than the equivalent of the work of one well-trained expert. In several of them practically nothing has ever been done with it, and the U. S. Department of Agriculture has made no very important contribution to its investigation for a good many years. This is by no means because the subject has already been thoroughly worked out. On the contrary, those who are engaged on it are making each year additions to knowledge, of some practical value, and new problems present themselves for solution faster than we can dispose of the old.

Then, when investigations are finished and definite results are reached, how many farmers put them to practical use? how many ever really hear of them? And why make economic investigations whose results no one uses? Such investigations are not really complete until means are found to give to their outcome the fullest practical effect. The truth is that we are fighting a great and destructive conflagration with one or two little engines, pumping water from a well. I am here to-day to say that we should change all this; that we should make ourselves fully acquainted with the entomological situation; and that we should then take ample and earnest measures to meet the emergency. Certainly, here in Illinois, at least one well-trained, thoroughly intelligent, persevering, industrious investigator should be put to work upon each of at least four great entomological problems, with the best equipment possible, and with all the means necessary to enable them to work rapidly and to the very best advantage; and they should have no other interest or responsibility until everything has been done that can be done to

work out into practical methods and recommendations the very fullest knowledge which we can possibly attain with respect to the principal insect pests of agriculture. What such investigators learn and finally announce and recommend should be pressed upon the attention of every farmer by every means at our command; and when individual action fails to meet the difficulty, agitation for coöperation and for concerted action of every sort should be set on foot and vigorously maintained until the whole farming population is effectually organized and thoroughly informed. This done, the indifferent, the lazy, the stubborn, the hopelessly ignorant, and the man who has given up, should either be encouraged by bounties of a fixed price per bushel for the dead insects or else should be constrained by law, rigorously and persistently enforced.

In support of these emphatic and perhaps too general statements, I propose to analyze the situation in some detail with reference to the greatest of our farm pests, showing in general terms, and as far as the time will permit, what we actually know which has a practical value, what we are actually doing in the premises, what we ought to be doing now to profit by our present knowledge, and what still remains for us to learn and finally to do.

The first phenomenon to which I wish to call your attention is the peculiar territorial distribution of the chinch-bug. Although this insect was first noticed in North Carolina, was first described as an entomological species from Virginia, and is known to occur throughout the whole central and eastern United States from Louisiana to Maine, New Hampshire, New York and North Dakota, its principal seat and center of operations is an oblong area extending east and west from southern Indiana, through northern Kentucky, Illinois, Iowa and Missouri, to Kansas and Nebraska. It occasionally appears in destructive numbers in Ohio, but it is rarely heard from farther east than there, or far to the south of Mason and Dixon's Line. So much we know, but if you ask me *why* it is thus limited geographically, I can give you some mere guesses and some vague surmises in reply, but scarcely an item of precise scientific information. And yet if we had this knowledge, it might go far towards helping us to practical methods of prevention. We might find, for example, that the cause of the local abundance of this species in this region is some combination of climate, soil, system of cropping, and average agricultural management, all conspiring together to promote its increase and all necessary to it, and we might quite possibly find that some one or more of these conspiring causes is under our control, in which case the removal of this cause would destroy the combination and break the vicious chain of cause and effect.

We ought then to have a thoroughgoing survey of this worse-infested region made in comparison with the territory around about as a means of accounting for the destructive visitations to which we are now subject, and in the hope of discovering thereby methods of avoiding them or of diminishing their destructiveness.

Again, besides this peculiarity of general geographical distribution, there are everywhere well-marked neighborhood and still more local variations in abundance and destructive activity of the chinch-bug. Why is this farm infested and that left untouched? Why does one neighborhood suffer enormous loss and another but a few miles distant escape practically scot-free? We are better able to answer such questions because they are more fully within the reach of the single investigator. We know, for example, beyond any further question, that the local distribution is governed in great measure by the kind, amount and distribution of the most attractive food plants offered to the old bugs in spring as they scatter from their winter-quarters in search of maintenance and of places to lay their eggs. No common farm crop tempts the adult more strongly at this season than a field of fresh young wheat. Indeed, in many parts of this State there is little else in the country at the time of their early spring flights to afford them food. Such considerations open up the whole subject of the effect of wheat culture on the

chinch-bug, and the still larger subject of the effects, under varying conditions, of different schemes of cropping, various distribution of the crops, and different kinds of agricultural management. The first serious scientific investigation of this difficult matter was that published in my Fifth Report as State Entomologist of Illinois. The results of that laborious research are too complicated for brief statement here, and I will content myself with a short account of the mode of operation, especially since it involved a new method in economic entomology, which we may call the *statistical crop method*.

After obtaining from the files of the Agricultural Department here a transcript of the acreage in each farm crop for each township of the State for two successive years, and obtaining also from township assessors as careful an estimate as practicable of the amount of chinch-bug injury during the year to each of the principal farm crops, these data were so tabulated and brought into comparison as to exhibit the connection, if any, between the acreage in each crop for one year and the amount of chinch-bug injury to each crop for the year following. Something of the thoroughgoing character of this work will be indicated by the fact that I have lately found it necessary to engage an expert mathematician—a senior student in the mathematical department of the University of Illinois—to make our computations and to plot our diagrams, since the handling of these entomological data required a familiar acquaintance with differential and integral calculus and the method of least squares. Work is now in progress in my office to test the value of these old results by a comparison with a new set of operations and deductions made for the present period. When we have finished this line of study I trust that we shall be able to say with the certainty of a mathematical demonstration what is the effect upon chinch-bug injury of a great variety of forms of agricultural management and procedure under a great variety of conditions and in all parts of the State. In the meantime, I have reached the provisional practical conclusion that in the presence of a serious chinch-bug outbreak it is wise to sow just so much wheat as will serve to attract the chinch-bug to it in spring, thus using these fields as lures for the concentration of the enemy, where they may later be handled to the best advantage by means which I shall presently describe.

I am also now much interested in the causes of those enormous outbreaks of the chinch-bug to which its destructive power is chiefly due, and especially in the causes of the termination of such outbreaks. We know, of course, that every form of life tends to multiply at a geometrical ratio so high that if there were no checks upon its increase it would rapidly take exclusive possession of all parts of the earth suitable for its maintenance, and if any species seems to multiply unduly at times it is because of some lightening of these checks upon its multiplication. Now, what is the rate of increase of the chinch-bug, and what are the restrictive checks whose lessening or removal gives rise to the frightful visitations which periodically ravage the agriculture of this State? Possibly, very probably indeed, some of these checks, when properly understood, may be brought more or less completely under our control, in a way setting the machinery of nature at work for our relief. If so, nothing in this connection can be more important to us than a knowledge of this matter, or more promising of success than experiments in this direction.

The first precise observations on the actual rate of multiplication of the chinch-bug were made in my office in 1894. By confining separate females with one or more males, both just arrived at sexual maturity, and keeping our captives under the most favorable conditions possible until they died of old age, we obtained a maximum number of two hundred and thirty-seven eggs from a single female, deposited at frequent intervals over a period of about forty days. The average length of life of adult females of the summer generation was about fifty days and that of males nearly eighty.

The chinch-bug thus yields, according to this data, something more than two hundred-fold for a single generation, which is about ten times the rate for wheat, or one hundred-fold, we should say, omitting the males, for each of a series of generations. But the farmer raises two crops of chinch-bugs in a year and only one of wheat. The annual rate of chinch-bug increase is thus really two hundred times a hundred, or twenty thousand-fold, which is a thousand times the rate for wheat. What wonder, then, that where the farmer gives both crops an equal chance—and the average man does no better than that—his harvest is often chiefly made up of bugs.

Look at these facts in another way. We caught and killed last summer about twelve bushels of chinch-bugs around a single twenty-acre field of winter-wheat, all of which, except for our experiment, would have escaped from the field to feed and breed elsewhere, as like numbers did from hundreds of other fields all over the country round about. Suppose that we had let these bugs go instead of trapping and destroying them; there might have been by this time, if everything had gone well with them, two thousand four hundred bushels of bugs descended from them, and by harvest-time next year 240,000 bushels (seven to eight million to the bushel), originating in this single small field of wheat. I don't think we need search any further for an explanation of the rapid development of an insect outbreak when it once gets a start under favorable conditions, or that we need any more powerful argument to enforce the importance of methods for the destruction of chinch-bugs during one of their periods of rapid multiplication.

But notwithstanding the enormous ratio of this natural increase, every once in awhile it is completely overcome by still more enormous losses, the death rate for a time greatly surpassing the birth rate of even this prolific insect, so greatly surpassing it that the disappearance of a chinch-bug outbreak is almost always much more rapid than its rise. It commonly takes three or four or five years to bring the insect wave to its highest point, but it may decline again to its lowest in a single season, as it did in this state in 1887.

What are the causes of this terrific periodical destruction of insect life?—a question in which we are certainly deeply interested, for if we can get command of such powerful agencies as these the problem of defense against these insects will be solved. Nothing we could hope to do by any ordinary human method of destruction could possibly equal this sudden wholesale sweeping away of the great mass of a vast insect host over a large extent of country by some mysterious natural agency. "It is the rain," say the farmer and the crop reporter, "that carries the chinch-bug off." Curious, if so, that we should have learned from our last year's experiments that chinch-bugs can endure many hundred times as much exposure to water as men. How long will a man live face downward on the surface of a mill-pond? A chinch-bug will live there for fifteen days, finally dying, perhaps, not so much by drowning as by starving to death. Indeed a baby bug just out of the egg will live on the water from three to seven hours. If kept continuously under water and prevented from coming to the top, these very youngest bugs will recover after one to three hours' immersion, and full grown chinch bugs have revived and crawled away after complete submersion under water for periods varying from twelve hours to fifty-four.

Finally we have kept large numbers of the eggs under water from the time when they were laid until they hatched—eighteen or twenty days continuously, without preventing the hatching of a single one. I think that we may safely say that if the current notion that a good rain will kill the chinch bug be correct, then it will kill a man to wet his head.

And yet it is always during and after wet years that the chinch-bug disappears, and never during a drouth. We cannot doubt, therefore, that there is a connection between the weather of a season or two together and the fate of the chinch-bug, and a rough generalization may unquestionably be made to the effect that dry weather favors its increase and

wet weather, long continued, with many cloudy days, in some way checks its multiplication. This knowledge has in itself, perhaps, no very great practical utility, since we can neither control nor foresee the weather of a season; and yet the time will come, I think, when it will strongly reinforce the argument for irrigation, in some parts of the state at least.

Furthermore, it seems to me that a farmer in a chinch-bug region who crops his land after a very dry year, or a series of such years, just as he would after a wet one, ignores important facts which he should take into account; that he bets on dice which he knows are loaded against his bet. He may win, it is true, but in the long run his losses on his bets will certainly exceed his gains.

I wish we knew more positively and precisely than we do just how wet weather produces its deterrent effect on insect multiplication. One thing we do know beyond a doubt; that is, that it promotes the development and spread of certain of the best known and most destructive contagious diseases of these insects, but whether its total effect is produced in this way, we are not yet in a position to say. The subject of contagious insect disease is an extremely difficult, obscure, and complicated one; not less difficult, but more so, if anything, than that of the contagious diseases of man. We know so much more about the physiology, pathology and hygiene of mankind than we do of the corresponding subjects of entomology, and the contagious diseases of men have been studied so much longer, more critically, and more extensively, that it is no reproach to the entomologist that he cannot answer questions in his field which the physician also has failed to find answers for in his. This is, however, a subject of great interest and practical promise to economic entomology, and I am very glad to be able to say that we now have in this state a thoroughly equipped laboratory and in it an accomplished investigator whose entire time, thought, and capacity are devoted to work in this one line. What we do not know and need to know in this direction we are fairly well assured that we shall presently find out.

Two of these diseases of the chinch-bug have now been carefully studied for years by myself and my assistants at my entomological office, one of them first detected by me in the chinch-bug in 1882, and the other in 1887. They are due to parasitism by minute moulds which sprout and grow on the living insect, thus causing it to "mildew," as we may say, while it is yet alive. They start from little spores or "germs" of microscopic size, capable of being wafted everywhere on the lightest breeze, and sprouting on the moist surface of the bug as grass seed sprouts on the soil; and as they sprout they send into the body of the infested creature their tiny rootlets and speedily kill it by feeding on its blood. After the death of their host these little plants continue to grow, penetrating and disorganizing the tissues of their victim; and if the air is moist they send tiny white threads out through the body wall, soon completely imbedding the insect as if in a delicate tuft of finest cotton. On these little threads new spores will form in unnumbered myriads, and thus the dead body becomes a center of contagion to healthy insects. When conditions favor their growth and spread in the field, these little molds become extremely prevalent and destructive, killing the infested chinch bugs by myriads, often covering the earth in considerable patches with the dead and mouldering insects.

The parasitic plants to which these diseases are due are capable of rapid cultivation on a large scale by the use of suitable materials for their growth. You are doubtless more or less familiar with experiments made to convey these diseases to the field, and to propagate them around chinch-bugs in the open air. The subject has been over-written enormously, to the encouragement of extravagant and even ludicrous expectations. Our studies of it are not by any means complete, but some general conclusions have been reached as the outcome of a great amount of careful work, and a few of these may interest you here.

The most important of these diseases, which we call the white muscardine of the chinch-bug, is by no means limited to that insect, but attacks a large number of other species as well. It probably never dies

out entirely over any large area, but is always sufficiently prevalent and common to furnish a beginning for a spontaneous spread wherever conditions appear favorable to the growth and reproduction of the fungus characteristic of it. The conditions necessary to its occurrence among chinch-bugs on the epidemic scale are an abundance of the bugs themselves and a considerable amount of wet and cloudy weather, with not too low an average temperature. The little fungus plant which causes it may be easily cultivated on certain mixtures of animal and vegetable substances, the cheapest and most satisfactory of which thus far used is corn meal soaked with beef broth. It cannot be grown, however, in the open air, since if this is attempted the mixture is spoiled by decay before the chinch-bug fungus can get a start. Its propagation among living insects, and their destruction by means of it is easy, (though not always certain) if the air is kept moist and the experiment is protected from the strongest rays of the sun. The distribution of the fungus in the field, or of bugs infected by it, will have no immediate effect if the weather is dry, and drouth may stop the progress of the disease at any time, completely obliterating it to all appearance until the weather changes. We have now much reason to suppose that bright sunlight is unfavorable to it, and that both moist and continuously cloudy weather are necessary to its maintenance.

The precise economic value of this method is not yet fully known. It seems to be at best a means of hastening the natural spread of disease among chinch-bugs under favorable weather conditions, but just how valuable an effect these artificial measures may have, remains yet to be determined. We may say, however, in brief, that as the effect of a chinch-bug attack is to hasten and intensify the evil results of drouth, so this contagious disease of the chinch-bug has the effect to hasten and intensify the beneficial consequences of wet weather.

If this and other like diseases, brought into action by favorable weather, are not the principal causes of the disappearance of chinch-bug out-breaks, then we do not yet know what these causes are. It is a sad commentary on the kind and amount of provision for entomological investigation in America that no economic entomologist or entomological assistant thoroughly competent to investigate this matter seems ever to have been in a position to follow through, in the field, continuously, day by day, the phenomena of such a disappearance, observing, studying, and experimenting, in a way to give him a fair chance of ascertaining with certainty the cause of this extraordinary and important occurrence. The knowledge which we have has been acquired in fragments, by improving occasional opportunities, frequently at the sacrifice of other important matters. I think that the time is coming when we shall no longer be compelled to confess to such disabilities—at least here in Illinois.

We are not limited, in practice, to a utilization of the natural hindrances to insect increase, but may, sometimes at least, devise and apply *artificial* measures in restraint of their multiplication, or for their more direct destruction. I am glad to turn now to this division of my subject, in which I have ready for report some more finished results of our recent experimental work than those thus far given—results, too, which have a great practical value at the present time.

Well-considered and successful artificial measures for the destruction of injurious insects are almost invariably based upon a critical knowledge of the life history and habits of the insects themselves. The case is rare indeed in which such critical study does not reveal a weak point during the course of the year which puts the insect enemy more or less completely at our mercy. Such a weak point in the history of the chinch-bug is its preference in spring for growing wheat as a food plant, and its consequent concentration in fields of wheat at harvest time. Being, as you know, at this time unable to fly, it is compelled with the ripening of the wheat, to leave the fields in which it was bred and to search for food elsewhere, most commonly making its way into oats or corn adjacent. These facts long ago suggested to farmers what is indeed the oldest of all methods of attack upon the chinch-bug—the mak-

ing of dusty furrows, impassable by small insects on foot, around the infested field of wheat, or at least between such fields and threatened fields of corn beside them. The common method has always been the same as that used against the army worm; namely, the making of a shallow ditch or furrow in the dusty earth by dragging back and forth a log through the plowed ground, and depending upon the continuance of this procedure to arrest and destroy the bugs as they seek to escape from the wheat.

A modification of this method, replacing the dusty furrow with a belt of coal-tar poured along the ground or smeared upon fence boards set upon edge, was introduced many years ago, first in McLean county in this State, so far as I have been able to learn. In this method the bugs are trapped by digging post-holes at intervals along the belt of coal-tar, into which they fall as they move up and down the line in search of passageway, and where they may be readily killed.

Another method of defence is based upon experiments made by myself in 1882, which demonstrated the extreme susceptibility of the chinch-bug to destruction by the use of the kerosene emulsion, a mixture of kerosene and soap-suds (containing about five to eight per cent. of the former) by which the bugs may be very readily killed as they concentrate upon the outer rows of corn in fields which they are entering on foot.

Each of these methods has its serious drawbacks. The furrow and log method requires the constant service of a man and horse, and is rendered inoperative by even so much as a gentle shower of rain. This by wetting up the dust in the furrow makes it readily passable, destroying its efficiency as a barrier against the movement of the bugs. The coal-tar belt and post-hole method is an expensive one, since the coal tar exposed to the heat of the sun dries out rapidly and must be frequently renewed. The kerosene emulsion method is likewise expensive of both labor and time, and does not fully protect the corn since at least the outer rows will commonly be sacrificed even if promptly and thoroughly treated.

A combination of these three methods makes, however, the most successful scheme of defence against the chinch-bug which has yet been devised, a statement which is based upon filed experiments recently made by myself and my assistants, on the Experiment Station Farm of the University of Illinois, and likewise on farms elsewhere, in badly infested regions. The results of these trials were so encouraging that I cordially recommend this procedure to farmers generally. It is beyond all comparison more useful than the much more popular method of the introduction of chinch-bug disease, being immediate in its action, while the other is slow at the very best, resulting invariably, where chinch-bugs are abundant in the wholesale destruction of untold myriads, while the other method is uncertain and inconstant, and being independent of the weather and other uncontrollable elements of the situation, on which the disease method is abjectly dependent.

It must be understood, however, that the most thoroughgoing possible application of this method by here and there an individual only in an infested region will protect a field from invasion only temporarily. If the insects are allowed to escape from other fields without interference, they will presently acquire wings and scatter everywhere, infesting from that time forward all fields indiscriminately. It is only on condition that the bugs are generally arrested and destroyed as they attempt to escape from fields of small grain that a permanent benefit will be gained.

The procedure is as follows:

As soon as the ripening or destruction of badly-infested fields of small grain begins to compel the chinch-bugs to desert them, a strip of ground four to six feet wide should be deeply plowed, around the entire field where practicable, or at any rate along the side adjoining corn or any other crop liable to attack. This strip should then be thoroughly and deeply

pulverized, first with a disc harrow and then with a brush, until it is reduced as nearly as possible to the condition of dust. Next, a short log eight or ten inches in diameter, or a triangular trough made by nailing two boards together and afterward loaded with stone, should be dragged endwise back and forth in this strip, the driver riding the log or trough if necessary, until a deep groove or furrow has been made across the line of march of the chinch-bug host. The sides of the furrow should be dressed here and there with a hoe, as may be needful to make sure that no passage-way out is left for the chinch-bugs which will presently accumulate in the bottom.

If the furrow has been well made, its dusty sides will prove impassable to the bugs which tumble into it, especially as these move at this time almost wholly on foot. If it is so placed that it is directly exposed to the sun, in very warm weather the great majority of the chinch-bugs caught in it will be speedily killed by the heat, the youngest succumbing first, but even adults finally perishing. Nevertheless, to insure their destruction, holes a foot in depth should be made in the furrow with a post-hole digger at intervals of about twenty feet, to serve as traps for the bugs. Here they will accumulate by pints and quarts or even by pecks in a place, according to the number in the traveling horde, and in these holes they may easily be killed with a little kerosene or coal-tar poured upon them. The post-hole digger may be conveniently used for removing them when dead and for dressing up the holes again.

As the myriads of bugs attempt to escape from the furrow, climbing its dusty wall again and again with desperate persistence, they will gradually lessen the slope by dragging down the dust as they fall back, and may thus, in time, make their way out. It is, consequently, necessary that the barrier should be continuously watched and occasionally rectified here and there with a hoe. After a time it will, perhaps, be most convenient to make another furrow parallel with the first, abandoning the latter or using it for the coal-tar strip presently to be described.

This furrow and post-hole barrier will work to practical perfection as long as the ground can be kept thoroughly pulverized, but even a slight shower of rain is sufficient to destroy it, releasing the imprisoned chinch-bugs and giving free passage-way into the threatened field. As a safeguard against this contingency, a barrel of ordinary coal-tar should be brought to the field, together with a watering-pot with a tubular spout and a dipper for dipping out the tar. If a slender line of coal-tar be poured along the bottom of the furrow, or on a hardened strip of ground outside, it will serve as a barrier to the progress of the bugs no less complete than that above described. When first applied it will soak speedily into the ground, but a hardened crust will thus presently be formed which will hold the tar until it slowly dries out. Along this strip post-holes may be made as before, in which the chinch-bugs will be caught even though the ground may be thoroughly wet.

If as a consequence of mismanagement or accident chinch-bugs succeed in crossing this barrier, they will accumulate upon the nearest corn, where they may be killed at slight expense by spraying or sprinkling the plant with the kerosene emulsion, made and applied as follows:

Dissolve one-half pound of hard or soft soap in one gallon of water and heat to the boiling point. Remove from the stove and add two gallons of coal-oil, churning the mixture with a good force-pump for fifteen minutes. When the emulsion is formed, it will look like butter-milk. To each quart of this emulsion add fifteen quarts of water, and apply to the corn in a spray—preferably before 10 a. m., or after 3 p. m. The bugs should be washed off so that they will float in the emulsion at the base of the plant. A teaspoonful to a hill is generally sufficient, but the quantity must vary with the number of bugs infesting the corn.

The ascertained cost of material per acre of corn treated will be less than seventy cents where the plants are practically covered with chinch-bugs, and no more than thirty cents per acre where they are moderately infested.

By these methods we last year destroyed substantially all the chinch-bugs from a twenty-acre field of wheat which had been so badly damaged that it was not harvested, killing in the furrows around the edges of the field about twelve bushels of bugs, and saving a crop of corn lying immediately beside it from all attack, except that made later in the season by chinch-bugs flying in from other fields in the neighborhood. The total cost of this experiment for labor hired and materials used was about \$5.

In all this procedure continual vigilance and indomitable persistence are indispensable. A single man or boy will guard from eighty to one hundred and fifty rods of the barrier, but he must be in the field early and late. This method may seem troublesome and costly to the reader of this description, but the actual expenditure of labor and money is practically insignificant as compared with the loss of crops which may thus be prevented; and the hope that the chinch-bug can be mastered without labor, money and pluck must be dismissed, for the present at least, as an unrealized dream.

In what I have thus far said I have tried to give you a perfectly frank, free and exact, although very imperfect, presentation of some of the more important facts concerning but one of the principal insect pests of the Illinois farm, selected merely as an illustration of certain general conclusions to which especially I invite your earnest attention.

I could have written at equal length on the white grubs, which during the year just passed have inflicted on the agriculture of this State a damage to be stated in millions of dollars—a million and a half, according to our estimate, in a single county—much of it because of agricultural methods which simply ignore patent facts concerning this notorious agricultural species.

I might have taken the Hessian fly as my illustration, in which case I should have shown you that practical conclusions completely established some years ago with respect to the mid-summer history of this insect have found their way into ordinary farm practice to a very small extent, if, indeed, at all.

If I had selected the corn-root worm, whose life history was substantially completed by me thirteen years ago—at which time a simple method of completely preventing its injuries to corn was proposed and demonstrated—I should have called your especial attention to the fact that notwithstanding the publication of this matter again and again, I receive every year from the most intelligent farmers inquiries concerning injuries to their corn which show that they are entirely unacquainted with this pest, and have no hint of a practical procedure for the prevention of its injuries.

Indeed, wherever I might have dipped into the record I could have shown you much excellent work in progress, unsurpassed in this department anywhere in the world, but proceeding on much too small a scale, a good deal learned of the highest practical value, but very little generally known of it and still less actually done with it; great deficiencies in our knowledge only to be supplied by a high order of skilled investigation, from whose results consequences of great value could scarcely fail to flow; and a very insufficient machinery for the distribution of knowledge important to the actual tiller of the soil.

In this State we have now in the State Laboratory of Natural History and the State Entomologist's office, associated with it, an excellent organization, a nearly complete equipment, and the fullest opportunity, and the greatest headway of perhaps any entomological organization or establishment in this country; but we sorely need, and indeed must have, a few more men and a little more money to keep them at work, a much better mode of publication than the present one, and a system of Farmers' Institutes thoroughly organized and provided for and well-manned with expert lecturers and instructors. We need also a much larger patronage of the entomological courses at the State University, which have lately been reorganized and rearranged in a way to admit

to them special students without conditions, except that they shall be competent to enter the University Colleges of Science or of Agriculture. From these classes we should be sending out a body of young men, trained, intelligent, observant, interested in the science and in the economics of entomology, who should serve in their respective counties and committees as sources of local information to the entomological investigator, and as centers for the distribution of useful knowledge among the people at large.

In time, also, I believe that it will be thought best for the agriculturists of the State to take the step which our horticulturists are already seriously contemplating, and to consider, at least, very carefully the plan of securing, by compulsory legislation if need be, the protection of the intelligent, the enterprising, and the industrious farmer against the destructive consequences of the indifference, laziness, and ignorance of his shiftless and unsuccessful neighbor.

The President: Gentlemen and ladies, this ends the program for this evening. We have listened to a number of highly entertaining and brilliant addresses, and a discussion of them by those present would no doubt be pleasant and profitable, but as the hour is late I think it is well enough to postpone it.

The Institute then adjourned to 1:30 o'clock P. M. to-morrow.

SENATE CHAMBER, STATE HOUSE, SPRINGFIELD,

THURSDAY, 1:30 O'CLOCK, JANUARY 9, 1896.

The Institute met as per adjournment, President F. M. Palmer in the chair.

The President: The Institute will come to order. The meeting will be opened with prayer by Rev. T. D. Logan, pastor of the First Presbyterian Church of Springfield.

Dr. Logan offered the following prayer:

PRAYER.



Let us engage in prayer. O Lord, Thou who daily loadest us with benefits, we approach Thy presence this afternoon, expressing our gratitude for all Thy favors and blessings. Thou hast opened Thine hand and richly bestowed upon us the blessings of Thy love and Thy grace. But we most would praise the Lord for His goodness and for His wonderful works toward the children of men. Make us truly grateful for all the favors and blessings that we have received, and that the old promise has never failed, that while the earth remaineth, seed time and harvest, cold and heat, summer and winter and day and night shall not cease.

Be graciously pleased to bless these, Thy servants, assembled to discuss the best methods of using these favors Thou hast conferred upon them. Bless the work of their hands. May it bring forth abundantly. Let the earth teem under their husbandry. And may its resources not be wasted,

REV. T. D. LOGAN.

but may they determine the best methods to increase its overflowings, that all mankind can enjoy.

We thank Thee for the land in which we live, a land of established growth for good, under a watchful eye, through the entire year. Grant us peace and harmony and brotherly fellowship throughout all the borders of the earth, and help us so to use our opportunities in this land that we shall be prepared for life everlasting, through Jesus Christ, our Lord. Amen.

Mr. Chandler: Mr. President, I beg leave to submit and recommend for adoption the resolutions presented.

The President: The Secretary will read the resolutions.

The Secretary read the resolutions, and they were adopted seriatim, as follows:

Resolved, That a vote of thanks is due and hereby extended to his Excellency John P. Altgeld and his estimable wife for the gracious reception extended to the members of the Illinois Farmers' Institute yesterday at the Executive Mansion.

WHEREAS, The officers and directors of the Illinois Farmers' Institute have actively and ably labored with a zeal only begotten by the most commendable missionary spirit for the inauguration and success of the first annual State Institute, and have succeeded beyond our most sanguine expectation in completing the arrangements for our entertainment worthy of the occasion and creditable to the industry represented. Therefore, be it

Resolved, That a vote of thanks be and are hereby extended to the officers for the able and satisfactory manner in which the Institute has been conducted.

Resolved, That the Committee on Program are entitled to a full measure of praise for success attending their effort to secure such an array of talent to address the Institute on such a wide range of topics of such general interest to the farmers of Illinois.

Resolved, That the gentlemen and ladies who have presented the able and interesting addresses named on the program are entitled to the gratitude and esteem of all in attendance at the Illinois Farmers' Institute.

Mr. J. B. Thompson: Mr. President, I desire to move the adoption of the resolutions presented.

The following resolutions were then read and adopted:

WHEREAS, under all just systems of government equal and exact justice should be vouchsafed to all citizens, each citizen equally enjoying the benefits and equitably sharing the burdens of government, thereby approaching through the agency of human law that sublime condition of natural law, under which each human being is placed by the great Creator upon a perfect equality of opportunity, and

WHEREAS, the present revenue laws of Illinois constitute a statutory denial of the justice of both this natural and this coveted human law and are an affront to the sense of justice of our people; therefore, be it

Resolved, That it is the sense of of this body that the revenue laws of Illinois are not creditable to this great and enlightened State and loudly call for revision or repeal.

Under the inequalities of burdens, as is truthfully and graphically set forth in the Eighth Biennial Report of the Bureau of Labor Statistics of Illinois, by striking illustrations taken from the Assessor's books of the State, truths that are known by every member of this body, the bonds, the stocks and the moneys of wealth and the property of the corporations largely escape taxation, while the farm lands and the holdings of farmers and laborers of the State are made to bear an unequal share of the tax burdens. It is little less than an outrage that in the great State of Illinois, agriculture and labor, the two primal industries of civilized life, should be thus oppressed while the professions which follow

them and depend upon them should be allowed such marked exemptions. More nations have perished by robberies of taxation than have perished by the sword, and it is high time that the American people were giving this important question their patriotic attention.

In view of this alarming condition, we hereby individually and collectively pledge ourselves to do all in our power to correct the aforesaid wrong and replace the present unsatisfactory law with one which will have justice as its fundamental principle.

The President: The first address on the programme is that of Hon. J. M. Thompson, of Joliet, Illinois, on "The Rotation of Crops."

Mr. Thompson then read the following:

ROTATION OF CROPS.



HON. J. M. THOMPSON.

and measures, in mixing his chemicals, or in uniting gases, in order to succeed in his experiments. Every plant that grows is its own chemist and has its own laboratory and is scrupulously exact in the measurements of the ingredients it absorbs, and the observance of combining proportions. The little kernel of wheat as soon as sown commences to perform its mission by absorbing just so much water, then it requires just so much heat, then it sprouts and commences extending its roots and little fibers in all directions in search of the substance required to force up the stalk. When the stalk is ready for use, other little fibrous auxiliary roots that have formed commence their operations in extracting and collecting from the soil the ingredients necessary to form the kernel, and no matter in what abundance these ingredients may exist about the plant, it only utilizes enough, in exact proportions, to make a perfect kernel of wheat. Fellow farmers, in your zeal to raise and sell large crops from your land, have you ever stopped to consider the cost and the result to yourselves and State, if the land under your care is not properly handled and methodically cultivated. It is stated on good authority that each acre of land under cultivation contains from \$600 to \$900 worth of nitrogen, as well as large quantities of other fertilizers.

Agriculture is an ancient, an honorable calling, and its patrons have been honored and respected in all ages of the world. For centuries its devotees have been studying into the nature and composition of soil, into the habits, wants and necessities of the vegetable kingdom. Research has taught that nature has established fixed laws for the government of all existing things. The human family must pay attention to the laws of health or suffer the penalty of neglect which is sure to follow. The laws governing the mineral and vegetable kingdoms are also fixed and penalties just as certain. For instance, we have found that it takes just so many degrees of heat to fuse certain metals. No matter what material is used to generate heat, the metal refuses to yield, and failure is the result until the exact degree of heat has been applied.

Chemistry teaches us the combining proportions of different ingredients in forming a new substance or compound. How exact must be the chemist in his laboratory in weights

In each bushel grain sold this year the fertilizing ingredients alone were worth more than we received for the grain. Let us state this in the form of an account with a bushel of wheat.

Dr.		
To plowing, dragging, sowing, harvesting, threshing, marketing 1 bushel wheat.....		\$0 72
To native fertilizer.....		62
Total cost.....		\$1 34
Cr.		
By 1 bushel wheat sold at.....	\$0 56	
By loss to balance account.....	78	
		\$1 34

Now to pay for the fertilizers extracted from the land we should have received for the wheat \$1.34 per bushel. To show our loss in fertilizers, I desire to read the following table of ingredients of several products of the farm taken from an acre of land:

One Acre Land.	Nitrogen.....	Potash.....	Lime.....	Phosphoric Acid.....	Silica.....
30 bushel wheat.....	48.	28.8	9.2	21.1	96.9
40 " barley.....	48.	35.7	9.3	20.7	68.6
45 " oats.....	55.	46.1	11.6	19.4	85.8
30 " beans.....	99.	67.1	29.2	29.1	7.8
17 tons turnips.....	112.	148.8	74.	38.1	7.7
21 " swards.....	153.	118.5	68.6	32.5	10.
22 " mangolds.....	147.	300.7	42.9	52.9	17.9
6 " potatoes.....	47.	76.5	3.4	31.5	2.6
2 " clover hay.....	102.	83.4	90.1	24.9	7.
1½ " meadow hay.....	49.	50.9	22.1	12.3	5.69

Reckoning at the commercial price paid for these valuable extracts, taken from the soil in last year's crop, it is not surprising that the loss on our oat crop in 1895 was, as reported by our State Board of Agriculture, over \$15,500,000.

In looking over the New York Stock Exchange reports we notice the export of large quantities of gold from time to time. Our financiers look upon this as just cause for *alarm*, and predict serious and alarming results. The Associated Press take up and reiterate the alarm in every note known in the press gammet. From another quarter there is a larger source of exports that is more fearful in its results on the business interests of the country than the real gold exports, one that should frighten the agricultural and commercial interests of the whole country. It is the export, in large quantities, of carbon, nitrogen, potash, phosphoric acid and other fertilizers and chemical ingredients, sold in our corn, wheat and other grain exported. The important question then is, how are we to remedy this greater evil and replace these chemical fertilizers and keep our soil in a good, fertile, healthy condition? The only reply is, by a judicious, scientific rotation of crops.

With the successful experienced farmer it is a fundamental principle that the various crops shall be grown in a well considered system of rotation. There are solid reasons for this. The plants, like animals of the farm, differ much in their habits, and in the different kinds of food upon which they subsist. Although all plants tend to exhaust the soil, they do so in widely different degrees. They withdraw from the soil different kinds and quantities of ingredients. Some of the farm crops

have long and penetrating roots, which draw their nutriment from the deeper layers of the soil; others have short, spreading roots, which ramify near the surface; some occupy the ground for a much longer period than others; some encourage the growth of weeds, or interfere with the proper cleaning of the ground; others facilitate the work of eradicating the weeds; and, finally, the "crop residues" of various plants of the farm differ greatly. A glance at the table I have just read, giving the average weight of the principal ingredients removed per acre, in pounds, from the soil by leading crops, will show the importance of growing these crops upon a carefully considered plan of rotation. It is obvious, by alternating the root, the cereal and the grass, and the clover crops, the producing power of the soil is most easily maintained and its exhaustion longer deferred.

It has long been demonstrated in practice that when land lies a few years under grass and clover it becomes enriched with ash constituents and nitrogen. From agricultural chemistry we learn that the grasses and clovers not only increase the quantities of nitrogen in the surface soil by drawing supplies of it from the sub-soil and from the atmosphere, but they have also the power of conserving that accumulated nitrogen in a form in which it is easily made available to a crop of grain.

The farmer, in practice, has been forced to consider facts above stated and has gradually grown into the habit of alternating in Illinois in the following order: First, wheat; second, corn; third, oats or rye, then clover, or clover and timothy. Other crops may be substituted in part for the above. This comprises a four years course or system.

To alternate in this way, the land should be divided into five fields so as to let the meadow lie at least two years, and not longer than three, clover one year. In this calculation stock has not been taken into account. On dairy or stock farms other theories obtain: More roots, turnips or potatoes may be planted and these fertilizers, through liberal feeding, be returned to the land. Also farmers near large towns that get their fertilizers for the hauling, can almost entirely disregard the theory of rotation on a limited quantity of land. However, ninety-nine out of every hundred farmers are so situated that they must rely upon a judicious, energetic rotation of crops, for this reason, if no other, that commercial fertilizers are too expensive for western farmers to use at the low prices their farm products are selling.

Many New England farms have become so depleted in all their fertilizing elements that they have been sold, and others can be bought for one quarter of what the improvements cost. The western farmer may avoid these direful results by paying proper attention to rotation of crops and by studying the progressive methods of agriculture as taught in our agricultural colleges.

In conclusion let me say, fellow farmers, that notwithstanding we have many drawbacks and discouragements in farm life, in our general scramble with the masses for wealth, but be not discouraged, land is the greatest, the surest, the best, inheritance we can leave our posterity. See that it does not deteriorate in your hand, to the end, that our great State may be thickly dotted over with the happy prosperous homes of our farmers.

The President: The next is an address by Hon S. T. K. Prine, of Dwight, Ill., on the subject of "Marketing Crops." Mr. Prine is so well-known to you as an authority on crop statistics as to need no introduction to an audience of Illinois farmers.

Mr. Prine then read the following:

When and how to market the crops is the subject you have assigned me to speak briefly upon to-day. I have accepted the invitation with pleasure. Not for the reason that I expect to say anything new or tell you anything you have not heard before.

I am a great believer in the coming together of our people on occasions like the present. We exchange views and facts on matters in which we are directly interested. Get new ideas of men and things, go home with broader views and thoughts of those who go to make up the world and the people who are in it, and are better prepared to fill those vocations in life which we have voluntarily chosen or by force of circumstances occupy.

The world may be divided into two classes, producers and consumers, and we might with equal propriety divide them into buyers and sellers. The exchange of commodities created by producers makes what we call value. As to what value really is, wide differences of opinion prevail, but these differences all finally resolve themselves into trade or commerce.

Divesting life then of all its moral, physical or social attributes, the whole object and aim of life is to move something. We can make nothing. We move the soil, we move the seed, nature gives the harvest. We move the crops, we move the grain to the mill, we move the flour to the oven, we move the bread to our tables, and our substance is secured.

The same author, and it has been impossible for me to trace its origin, has another idea in this same direction. "All our efforts is to overcome friction. Yet if there was no friction no effort would be possible. We turn the forces of nature so that they may help us, but we can never dominate them. We may substitute intelligence for force but so long as man dwells in this body he will be under the dominion of the great material forces by which the universe exists and moves and has its being."

Thomas F. Bayard, our United States Minister to Great Britain, as you will recollect, has very recently delivered a speech before the Edinburgh Philosophical Institution. His address has caused a great deal of criticism, but at the same time was received by the Scots with great enthusiasm.

In the course of Mr. Bayard's notable paper he took occasion to say (which I think bears directly upon the question which is now before us) that "The forces of productive industry were never so great and the burdens upon their products never so heavy. Combinations and consolidations to resist injustice and competition for success have gradually arrayed capital and labor in opposite camp, in which the power of each is separately and too often adversely organized. Serious conflicts have occurred and conflicts more serious are impending which threaten disaster to that tranquillity and good order of the State which are essential not only for its progress but for the maintenance of the civilization the world has attained. Such conflicts, so deplorable and disastrous are wholly the result of misunderstanding. For it is clear and indubitable that the interests of capital and labor are united by a common fate. They are co-partners, not adversary and there should be no obscuration of this important truth."

There is not nor can there be any iron-clad rule to be found or pointed out as to when is the best time from a producers standpoint for him to "Market His Crop."

The very life, essence and existence of commerce depends upon the movement of the crop. The energy, the brain and in fact everything in life after a crop is made seems bent in the commercial world towards its movement.

Two classes of people are more or less directly and indirectly interested in this movement. The one is the producer and the other the transporter.

Speculation of all kinds is carried to a very high point as to when and how soon a crop after it is grown will commence to move. Early this season we were flooded with information with regard to the great move-

ment which we were promised in the direction of the corn crop. We were told that it was beyond the capacity of the railroad interests of the country to handle this crop. So far the movement looked for has never come.

Wall street always sets up a howl for the crops to move so that they can bull or bear railroad stocks. The daily receipts and grain centers of the country are watched and studied with the deepest scrutiny, for upon these receipts values of railroad stocks are based.

As the country grows in years, it must and does grow richer. No class of men are able with so little inconvenience to themselves to adapt themselves to their surroundings as the farmer. I regard him as a dictator, if he only knew it, and in spite of himself is the most independent man in the world.

The country has now reached, I think, in its history, a great crisis as a producer. We not only have enough, but to spare. Nations of the earth are developing their lands which for centuries have lain idle. Areas which when we studied geography were known as deserts now are fruitful and productive and are blossoming as the rose. They are among our greatest competitors in the marketing of the crops.

While the tendency of the age is to produce in a ratio never known before, the outlets and ways and means for consumption have not correspondingly increased. Hence, it seems to me that there never was a time when the question of marketing crops cut such a figure in the commerce of the world as it does to-day.

This is and promises, I think, to be for some time to come, an era of low prices. No one, in my opinion, can do more to prevent us drifting into a still lower level of prices than the farmer by judicious judgment in the movement of his crops.

From the very nature of things, the producer is a natural born speculator. His life, his existence and all his surroundings naturally tend in this direction. His first speculation generally commences in the spring of the year, when he speculates upon the weather. Will the weather be wet or dry? Will I be able to put my crop in the ground early or late? After the spring crops are seeded, speculation again takes hold of the farmer and he is in all manner of doubt whether he shall have to face a drouth, or the season will prove a favorable one for the growing of his crops. Then at harvest he speculates whether he will have to contend with a wet or dry harvest. Taking it for granted that the season has been a successful one, he at once commences speculating as to when will be the best time to move his crops.

Except the farmer, I know of no avocation in life where honest labor is expended in season and out of season, in hot and cold, in wet and dry, without any definite idea as to what recompense will be received for his labor.

Merchants have a definite and conclusive idea to the fraction of a cent what they will get for their goods when offered for sale. Manufacturers of all kinds of raw material as well as converting into articles of use know to a dollar what a thing will cost them before they are offered for sale. The farmer's case, as I have said before, is entirely different. Yet, even in a wider and broader sense of the word, he becomes a great speculator in the marketing of his crops; but as this is not his legitimate business, in the majority of cases fails to receive what he ought to for his labor. No farmer ever put in his crop in the spring but what was buoyed on by the hope that when he marketed it he would receive far more than it was worth when he put it into the ground. If the farmer was satisfied with a fair remuneration for his crop he would be in the end far better off than waiting and taking speculative values which are only snares and delusions.

I remember so well this season an experience I had of my own in the direction of the moving of a crop. I had one thousand busels of corn to sell. I sold it at fifty cents per bushel. The morning I sold it, when I

went to the elevator I think there were at least fifteen or twenty men, every one of them practical, hard-working farmers—men who had all produced their corn by the sweat of their own brows, while mine had been produced by the sweat of other men's brows. Mine came to me in the shape of a rental. Theirs came to them in the shape of return of muscle. It was a very interesting, practical illustration of the wide range of opinion among those farmers with regard to the best time for marketing their crop. A speculative wave in the corn market was creeping over the country. At one time I would have been willing to have sold my rental for forty cents a bushel, and did sell a portion at that price, but after the corn was sold a drouth came over us which threatened to destroy the growing crop; but I said drouth or no drouth, if corn this summer sold for fifty cents per bushel at home, I would sell it, and sell it I did. I was the only man of that crowd who sold his corn that morning at fifty cents a bushel.

The drouth was then so severe that we all thought that we could not raise a bushel this season and that corn would ultimately sell at sixty to seventy cents per bushel. What was the sequel? Fifty cents was the highest point that corn reached this season. Rains came; crop was saved. Receipts began to increase, corn dropped day by day, until those who might have received fifty cents a bushel finally were obliged to take from twenty-five to thirty cents for their corn.

It is a very singular fact, but nevertheless true, that a very large proportion of our farmers never let their corn go on a rising market, but are always free sellers on a falling market.

It is now twenty-five years since I worked with the Grangers. I look back upon those days with pleasure and with profit, in the sense that the results of that great movement were in the main practical and satisfactory. No movement of the agricultural classes in the same length of time from that day to the present have advanced the interests of the producers and the interest of the country at large as did the Grange movement. One of the most practical, far-reaching results of the Grange was the effect upon the railroads of this country. They were regulated and operated by law as they never had been before. State and national railroad commissions as a result of this movement were successfully inaugurated, and I think exist to-day in every state in the union.

Railroad freights, as a result of this agitation, have been reduced fully fifty per cent, and passenger rates also in the same proportion. In fact it is cheaper now for a man to travel than to stay at home.

The social condition of the farmer has also been greatly improved. Successful cooperative stores were also created at that time and some of them exist to this day, where the farmer was and is able to purchase everything he needs at wholesale rates. These are a few of the marked changes for the better which were a result of the Grange movement.

The point, however, to me which is so intimately connected with us as a people, and particularly as a producing class, was the attempt to make some combination by which we might market our crops and as a result receive better prices than we were then getting. The Grange did not attempt, however, to carry this idea out on a very large or extended scale, but let it generally be a local Grange. This idea of a confederacy by which we could pool our crops and market them as a Grange rather than as individuals proved to be a signal failure. This has been one of my dreams for the promotion and betterment of the farmer. A condition, however, which I have failed to see materialize.

There is something in the isolation of the farmer, his freedom in everything, that not like other classes of wage-workers, who work in communities, mingle and converse with each other as to their situation, hopes and prospects, that the idea of pooling the results of his labors is very repulsive and in direct opposition to his own convictions.

I never expect to see successfully carried out the marketing of crops through combination. The country is too big, interests too varied and opinions widely at variance as to prices and values.

In concluding these remarks, I think the situation fairly resolves itself into this:

Owing to vast areas which cover our crop production, combinations by any large number of producers never can be successful. The nearest approach to combination is our vast system of grain elevators. Not confined to grain centers alone, but situated at every railroad station where grain is produced, and stretching from the Atlantic to the Pacific.

I regard the country elevator, as we call it, the most practical machine to-day for marketing the crops that exists. It is always backed up, not only by its own capital, but generally has sources of revenue drawn from the large grain centers amply sufficient, not only to handle the crop as it is delivered in its daily routine, but able to make advances upon grain which the farmer stores himself at home.

A very small percentage of the crop grown in a single season is moved by the farmer himself. It finds its way almost directly from the field into the country elevators, and I doubt very much if we shall ever have a system more uniform and just in all its requirements to buyer and seller than our present country elevator machinery.

See, also, what competition on the land and on the sea so far as transportation is concerned, has done. Compare to-day the prices received for steel and iron as compared with those received ten or fifteen years ago.

Look at the cheapness of all cotton, woolen and silk fabrics. Then when we compare what the farmer is receiving to-day for his products the comparison is not a bad one.

I believe it is a very poor rule for any farmer to hold his product for a speculative price. I have always found it in the long run that my crop has done me the most good and that I got the most money out of them when I sold my grain when I needed the money.

The President: Senator Dunlap, of Savoy, was with us last night, but he has been compelled to attend a meeting of the horticultural society, and cannot be here this afternoon. He is one of the best friends of the farmer in the State. He is the bone and sinew of the Institute work in Campaign county, holding two or three institutes there every winter. Though he could not attend himself, he has left his paper, which the better half of his family, Mrs. Dunlap, will now read to us.

An address on "The Fruits of the Farm," by H. M. Dunlap, of Savoy, was then read by the wife of the author, as follows:

FRUITS ON THE FARM.

By Henry M. Dunlap, Savoy, Ill.



H. M. DUNLAP.

sion among a large majority of our farmers. At a recent farmers' institute which I attended the question was asked, "how many present have a succession of small fruits on their farms." Only one hand was raised in response to this inquiry. If the farmer will devote one acre of ground to the orchard and fruit garden for say four years, I will guarantee that he will never be without plenty of fruit afterward, for having once learned its value, he will make it a part of his business to look after his garden and orchard.

He will never go back to the old regime that no doubt obtained before he tries his experiment. The farmer who fails to take advantage of his opportunities in this line fails utterly to appreciate what a life upon the farm means, and ought to move at once to a coal-mining town and go to work in the mines. The grass, the trees, the sunshine, the vegetables of the garden, the fruit of the orchard, are all wasted upon him for he cannot figure out their exact value in dollars and cents. The "almighty dollar," to such a man not only obscures the sun, but blinds him to the comfort and health of his family. Believing that salt pork and potatoes are "more fillin'" he has no time to waste upon a fruit and vegetable garden. Should the children become sick upon such a diet he has recourse upon the bottle of patent medicine, and when through their perversity or lack of appreciation of life upon such a farm, the sons and daughter seek the city, he wonders why his children leave the farm.

But to an intelligent body of farmers I have no need to argue the benefits to be derived from having a succession of fruit upon the farm. No doubt, however, but what you are acquainted with such as I have described, for he is too numerous in every neighborhood to be overlooked, and it is when we call such to mind that we more fully appreciate the condition of the average farm and the necessity for more advanced ideas

Mr. President: One of the advantages of living upon the farm is the opportunity one has of having upon the table delicacies of the fruit and vegetable garden that is beyond the reach of the one who lives in the larger cities. There is a degree of freshness and superior quality about the fruit which ripens upon the vine or tree, picked fresh for the table, over that which being picked in the unripe condition, is, after being transported perhaps hundreds of miles exposed for sale until it becomes stale and it then in this unfit condition finds its way to the table of those who, living in the city, are forced to put up with such stuff as the farmer would not think of eating. It is true that the farmer has this opportunity to partake of the best that nature affords if he has a just appreciation of what advantages he possesses. How often do we see no attempt made to grow any fruit whatever and but a sickly shadow of a vegetable garden upon the farm. Our observation leads to the conclusion that this is a serious omission

on this subject and its importance. A great many farmers imagine that there is some mystery about fruit culture, but the sooner you disabuse your mind of such an error the better. The ordinary fruits can be as easily grown as vegetables and the only secret there is, is that of good cultivation. Along with this is a good selection of varieties.

The selection of varieties is indeed an important matter and should have our careful attention, for if we do not start right in this we will be liable to disappointment, even if we give the best of care afterward. In the planting of tree fruits is this especially of moment; for with them we not only loose the work and cost of the tree, but what is of more value, if we fail to get good varieties to start with is *time*. The man with the everbearing raspberry, the bush strawberry, the thornless blackberry, the never blighting pear, the hardy Russian and peach tree crossed with the hardy maple are to be avoided by all means. Don't make a mistake of buying a thing simply because it is new and high-priced, thinking thereby you are getting ahead of your neighbors. Stick to the old and well tried varieties. The fashion in trees, unlike that of bonnets, seldom changes, and a good variety once found is not to be lightly cast aside.

Strawberries are as easily raised as vegetables. Set the plants in well prepared soil and give them as much care as you would a lot of cabbages in your garden. Keep down the weeds by careful cultivation and hoeing through the season. In the early winter after the ground has frozen, cover lightly, about one inch with prairie hay or cornstalks. The second and third year after the crop has been removed, run the cultivator through or take a small turning plow and plow closely along the rows, leaving a strip unplowed in the row about six inches wide; after this harrow lengthwise to level the ground, and after one or two more cultivatings let the runners form a new lot of plants to grow fruit the following year.

Raspberries come in as soon as strawberries are gone, and you should have them by all means, the red as well as the black; and as blackberries come immediately after the raspberries in season, and require the same treatment, I will mention them together. Set the young plants in the spring and cultivate the same as you would corn or potatoes during that and the following seasons. The first year some other crop as potatoes could be grown with them, as they should be set about eight feet apart and three feet in the rows. If it is not convenient to cultivate after the first season, the plants can be heavily mulched with straw, or strawy manure, thick enough on the ground to keep down the grass and weeds. The young shoots that come up from the root should be pinched back during the month of June, or very early in July, to a height of eighteen to twenty-four inches. These canes are the ones that bear the fruit the following year, therefore, during the winter the old dead wood should be cut out and burned up, and in the early spring the canes of the preceding summer's growth should have their lateral branches cut back to about twelve inches in length from the main stock. Red raspberries, however, do not need the summer pruning or pinching back, and only need to be cut back and the old wood removed in the early spring.

Currants and gooseberries are very healthful fruits and should be in every garden, for they almost take care of themselves if no other attention is accorded them. The worms that eat the leaves in the spring seem to be their only drawback, and these are easily cared for and killed with an application of hellebore dusted on the vines as soon as the worms make their appearance, usually requiring a second application a few days after the first.

Grapes are easily grown, and if a careful selection of varieties is made we can have them on our tables from the middle of August to the middle or last of October. Grapes should be planted eight feet apart each way.

Pears—yes, plant pears, for nothing, in my estimation, suits the children of the family better than pears. We do have some varieties that are comparatively free from blight in central Illinois, and it will pay to plant

them. They require but little attention. In fact, after the first two years they do better and are less liable to blight if they are kept in sod, and for this reason, as well as that they are ornamental, they may be planted on the lawn and serve two purposes, that of being useful as well as ornamental.

The Early Richmond cherry will do well either cultivated or in the sod, but you will get the best results if you give good cultivation, or at least a good manuring each year after the trees come into bearing.

Now we come to that king of fruits, the apple. Who would be without it—surely not the farmer, for certainly he cannot afford to be without this health-giving food. I would as soon be without good water as to be without good apples, and would not like to go through a season without them. Nothing in the whole fruit list is more conducive to health, and no other fruit you can raise can be put to so many uses and that will begin to last as many months as the apple. It is best to plant it in the spring, in well prepared soil, at a distance of 30x30 feet each way. Trim out interfering branches when your trees are young, and do not trim much when old. By all means do not plant closer than the distance mentioned. If you plant at this distance you will have 50 trees on an acre. While the trees are young small fruits, such as strawberries, raspberries, and grapes, currants and gooseberries can be successfully grown in the orchard between the rows. Garden vegetable and sweet or field corn, pumpkins and squash vines will do no harm in the orchard. By all means give thorough cultivation, and when the trees come into bearing do not allow the blue grass to get in but seed down to clover occasionally, and cultivate alternately every two years after the trees are old. If you have given due care to the selection of varieties and have, during the growth of the orchard, kept it in good condition, you will not fail to reap your reward in ample crops of splendid fruit that will be your delight and the envy of your neighbors.

Try to interest the younger members of the family, the children, in the care of the fruit and vegetable garden and you will find that they soon take a deep interest in its management, and will spend lots of time in its care that might be otherwise wasted in idleness or mischief. A well regulated fruit and vegetable garden is a great incentive to the whole neighborhood to go and do likewise, and it is surprising how soon a good example of this kind is followed.

I have not recommended a list of varieties for you to plant for the reason that this is a large state and what is good for southern Illinois is not always the thing to plant in northern Illinois. The State Horticultural Society has prepared a list of all these fruits for planting in the different parts of the State, and I refer you to any one of their recent publications for such a list, which I know you will find to be valuable. These can be had of the Secretary of this meeting.

The President: The next address will be delivered by Doctor Daniel Berry. Topic: "General Drainage and Its Relation to the Prevailing Drouths."

Dr. Berry then read as follows:



DOCTOR DANIEL BERRY.

streams required six or eight weeks of slow accumulation to reach their flood heights; to-day they get to their danger limits in less than one-fourth of that time. It took the old time freshets just as long to subside as it did for them to come to a full head; and, again, they rarely rose as high as they do now.

The reason for that old time state of things lies in the fact that the hundreds of thousands of square miles of timbered lands along the borders of these streams were then almost untouched, and the soft, spongy humus of those forest lands retained the rainfall and retarded its passage into the streams. Associated with these woodlands, along the water courses, was what might be termed a system of swamps. These were natural reservoirs which kept the main drainage channels flushed in the summer.

These swamps were not confined to the woodlands. The system was spread all over the prairie states.

These swamps, with their interlacing lagoons and creeks of perennial water, furnished a source for wonderful evaporation.

Forty years have changed all this. The forests have given place to elaborately ditched, tilled, well tilled farms; it was soon found that these swamps—the water once removed—were as fertile as the Garden of Eden.

I wonder if any of you know how many thousands of square miles of swamp and morass have been reclaimed and put to wondrous cultivation in Illinois alone? If you do, I want the information. I have ransacked all the places I could think of, but I have found no data covering the case so far, it is an unknown quantity.

With all this drainage, consequent to letting the sunshine on to the humus of the woodlands, and hundreds of thousands of miles of ditch and buried drain tile in low land and swamp, what have we accomplished?

Some one has said: "God made the country and man made the town."

In various directions an effort is being made to make this read: "Man made the country and godless men make the towns."

It is being charged that this generation has changed the climatic condition of this country. To ascertain whether or not there be any truth in the charge is the question asked by the United States Agricultural Bureau, by the American Forestry Congress, by the navigators of all our inland streams and by all the vast farming community generally.

I believe the idea prevails amongst all these that this generation has changed the climatic condition in the Mississippi valley to the extent of diminishing our summer rainfall.

The causes for this seem to be perfectly plain and easy to understand.

Forty years ago our rivers rose slowly and gradually. Our larger

We have brought into use some of the most wonderfully productive lands in the world; but to their cost of reclamation must be added this important charge: We have destroyed a source of constant evaporation that was utilized in the times when we most need rain.

From the lamentable failures of Gen. Dyrenforth, in the employ of the United States Signal Service, bombarding the atmosphere to knock the rain out of it, and other charlatans, who conjured a cloud over the intelligence of the dwellers in the arid lands—but such a cloud as rained dollars into the pocket of its creator—we are beginning to learn this fact: There is only one rainmaker. He works in the old-fashioned way. And, like all other workers, he *must* have *raw material* out of which to fashion his product.

He also works strictly according to law. There is method and exactness in all his machinery, and throughout all time it has worked exactly as it works now.

The sun is our rainmaker. His machine is atmospheric air. The motive power is the sunshine, the raw material is the water on earth's surface and the finished product is the rain and snow.

Like all other machines, the product of *this* one is always directly proportioned to the amount of power used in running the machine and the amount of raw material on hand to be worked up.

In other words, the law of the machine is this: The air carries watery vapor in direct proportion to the amount of heat it bears.

Now if you will bear in mind this law you will readily understand what happens in a district of drouth where all the surface water has been exhausted. Let me show you how the machine works in Illinois. At the times when our growing crops need moisture nearly all our rains come from the southwest.

The winds are in that direction at such times, chiefly, and they come freighted with watery vapor that has been evaporated from the Gulf of Mexico and the lagoons, swamps and streams along the routes of these winds. Now if these air currents be loaded nearly to their full capacity with watery vapor, it follows that if these loads be increased by reinforcing evaporation, the carrying capacity will be strained, or overcome, and the current must drop its burden. On the other hand, if the *carrying* capacity be increased by the immense heat radiating from the surface of a sun-burned region, the air can *retain* its load and carry it to more favored regions.

The machine works just as simply as that.

The more sunshine, the more raw material for evaporation, the more rain; or, the more sunshine and the less raw material for evaporation, the less rain.

You can now see the reason why, when a drouth is once thoroughly established over a district, it is so hard to break.

At such times, it is the experience of every one of you to have seen a rain-promising cloud come looming, hand over hand, out of the southwest; the crops on your parched fields are dying for a drop of water; you see the heat in crinkling waves rising from the super-heated, thirsty ground; but the cloud comes on, and its promise to you is broken. It dissolves into transparent air and fades away. Why? The old Rainmaker is trying to do his best for us. Why can he not accomplish the work? The answer is so plain and simple that a child can understand it: We have lessened the *work* of the machine and increased its *motive power*.

In our greed for more and better lands we have invaded the old store-houses where the rain-maker kept his raw material, and have drained them. The laughing sunshine, finding no water to evaporate to add to his cloud-work, says, practically: "These people do not want water; that is evident—they have drained it all away. I will kindly aid them in

their efforts to become dry-land terrapins by adding all the heat I pour on this barren land to the force of my cloud-machine, so that not one drop of water shall be spilled on them."

And it is done.

This condition of things is not confined to our State. It has become almost a mid-continent condition. Is there a remedy? Why, of course there is a remedy. The evil is spread over the national domain, and the cure must be national in its work and character. No one state can do much to help itself. To illustrate what I mean, and to show how dependent the different sections are on each other: If, next spring or early summer, say May or June, you shall have abundant evidence that northern Texas, the Indian Territory and Arkansas are plentifully supplied with water—all their lakes, swamps, creeks and rivers brimming full—you may rest assured that the rain-fall here will satisfy all our needs. The southwest winds come loaded with the evaporation from those supplies; they are so heavily charged that they must spill their contents along their route to the northeast.

Here we see the old rain-maker at his best, where he loads up his consignment and pays the freight to its destination among us. Perhaps those sources of our rain-supply are nuisances in Texas, Arkansas and the Indian Territory; but it will be a woeful day for us when they are abated, or reclaimed and put in cultivation.

You have heard a great deal about changing these drouth conditions by the salvation of the timber and by the cultivation of trees in districts now void of woods. The preservation of the forests is all right, as far as it goes; but to-day the forestry of twenty years ago would not compensate for our prairie drainage.

The cultivation of new forests is entirely out of the question without a water-supply for rain that shall be sure and steadfast.

The thing needed now is to save the winter rainfall by natural and artificial storage. It is a national work, and to accomplish it the nation must assert its eminent domain. Prosperous farms, occupying old-time swamp lands, must be condemned, paid for, and converted into reservoirs for evaporation. Artificial lakes must be built by retaining dams amongst all the hills of the several states for the like purpose; and wherever these natural facilities for evaporation exist in the now sparsely-settled sections of the country, as those of the southwest, they should be held by the government, and held *sacred as waste places* for the general good.

A centennial fraction of the land devoted to this storage of raw material for the old rain-maker would insure a long-continued epoch of the most favorable, thriving conditions for the hosts of humanity that will occupy this continent.

It will cost money. Can we afford it? Of course we can. What will it cost? We talk about war; who cares for the billions spent for death, havoc, starvation and destruction? Then why should we calculate with greed and cunning on money spent on internal improvement that insures peace, plenty and prosperity for untold ages?

Apart from this scheme of simple storage of water for evaporation in aid of rainfall, I see a glimmer of hope in man's invention. Will you allow a moment for speculation? We are just beginning to learn something new about the air, and Professor Dewar, of the Royal Institution, London, is teaching us. Five years ago if a man had told you the air was a *mineral*, you would have thought him fairly started on the road to Kankakee; but, to-day, this English professor demonstrates its mineral character by showing it to you in a solid form, like a chunk of ice.

Nature, like a miser, oftentimes locks away her simple secrets in strangely-hidden places. Professor Dewar, like a burglar using dynamite in his search for secreted wealth, uses like means to attack the strong-holds of nature's secrets. With his wondrous mental energy he directs

the forces of material things; and with tremendous pressure, tremendous heat and tremendous evaporation he challenges the air and compels it to reveal its true character.

One of the most instructive lessons he has taught us is concerning the almost incalculable amount of heat this common air carries locked up within itself as latent heat. Under ordinary temperature the air gives out more than three hundred degrees of heat before it assumes the liquid form, and in its solid form is three hundred and forty-six degrees below Fahrenheit's zero. Whether liquid or solid, it is just as hungry for its latent heat as it was loth to part with it, and on the first opportunity flies into its gaseous state, locking up all the sensible heat in its vicinity again as latent heat. It is this tremendous appetite for sensible heat displayed by the expanding air that is our hope.

Air, at ordinary temperatures, contains more or less moisture. If a drop of liquid air be let fall, three feet from the floor, that drop never reaches the floor. The liquid makes a lightning change into atmospheric air, and in doing so takes up all the sensible heat from the air around it; this air, in its turn, thus loses its hold on the vapor it was carrying and a miniature snow-storm descends on the floor.

In this connection, perhaps it would be well to call your attention to the utter nonsense shown in General Dryenforth's exploitation as a rain-maker in the employ of the United States Signal Service or Agricultural Bureau.

I have tried to show you that cold air *cannot* carry vapor, that heated air *does* carry it, and the more heat it has the *better* it carries it.

Remembering this, you will easily see the futility of trying to make the air give down its moisture by adding to its heat, or in other words increasing its carrying capacity. But this is just what Dryenforth does. Every explosive discharged in the air is so much combustible matter, and the combustion develops heat which gives the air a firmer grip on its moisture.

Let me instance a case in point: In California in the summer time, the prevailing winds are from the west—just off the Pacific ocean—and are loaded with all the vapor they can carry; but they come in over a dry, cloudless land from which the sun heat is radiating in immense quantities. This heat enables the air to better carry its burden, and it bears it inland to the heights of the Nevada range, where it parts with its heat among those altitudes and then drops its vapor as snow on the mountain tops.

About thirty-five years ago the scientists and philosophers had a plaything, in the shape of the newly-born ice machine. It was rather an expensive toy, as it cost about five dollars to produce a cubic inch of ice.

It remained a plaything until it came under the notice of the practical man. He saw its capabilities, and he said: "Simplify that machine and cheapen it so that I can use it in my business." First one and then another inventor gave it his attention, until to-day there are the thoughts of hundreds of men budded into, and grafted on, to that primitive little French refrigerator, and it has revolutionized the commerce of the world.

In Prof. Dewar's researches into the secrets of the atmospheric air it costs about fifteen hundred dollars to produce a cubic inch of solid air ice.

Here again the practical men and the inventors, like the Magi of old, behold the star of promise, and, led by it, bring the wondrous gifts of their genius to lay them at the feet of this glorious, new-born, mighty revelation.

Already the inventor has touched the process with simplicity and cheapness, and is ready to furnish liquid air as an article of commerce. The practical business men, the practical philanthropists, with prophetic foresight, see in this agent—commercial liquid air—a complete solution

for many vexing problems; the complete sanitation of our crowded cities; the purification of disease-infected ships; the safety and salubrity of all mining operations; the certainty of miniature cold storage plants in every household. These, and hundreds more, are the logical consequences lying in the cradle of this commercial liquid air.

But there is one that particularly interests the farmer in a dry land. Do you realize how many cubic yards of ordinary atmosphere are compressed into each cubic inch of liquid air? Professor Dewar does not tell us, but it must run into the hundreds, and each cubic inch of liquid air as it expands into common atmosphere will make hundreds of cubic yards. Now remember, to become liquid, the air gave up over 300 degrees of heat.

All this expanded air is hungry for its normal quantity of latent heat. We know about how much coal is required for the compression of all these yards into the cubic inch; and we know that the expanding inch will take up as much heat as is provided by the combustion of the coal used in compressing it. Now if we represent this heat in the atmosphere by tons of coal, we can say this expanding inch of liquid air takes up tons and tons of heat. If this process could be carried on in the air strata above us, there is only one chain of things that could happen: The vapor laden air would lose its motive power for carrying its burden, as its heat was locked up, and, as a consequence, its moisture would fall.

We are exactly in this condition in all the cold storage rooms. Give us this liquid air in commercial quantities, so that we can shoot ten-gallon canisters of it into the upper air strata and liberate it there by some appropriate device, and rains can be made to order.

In this speculation we must not lose sight of the sure thing to promote rainfall which we have at our command in the wide-spread storage of water for evaporation. The plan is simple and in accordance with natural law. It is feasible, practicable and within our power to accomplish. All it needs is general discussion that the people may see its simplicity, and, when once seen, they will all be willing to lend a helping hand to the old rainmaker in his efforts to help them. This scheme of storage of winter rainfall is so wide-reaching in its effects, and so long-continued in its results that it must be approached in a systematic manner.

If we begin, even now, with an expenditure of money proportionate to the design, and with a plan that should not be burdensome to the people, we could hardly hope to accomplish the work in fifty years. But with this outlay of money there would be, apart from the assured rainfall, some other compensation. These pools would not be the unsightly, malaria-breeding places of the old time swamps; we should call in the aid of the botanist to stock them with such water plants as would keep them pure; we should call on the fish culturist to use them as a new theater of food supply, and we should call on the farmer to utilize them in growing rice on the flooded low lands.

I say the plan is practicable and all-sufficient for a steady and sure supply of rain when most needed, and all that is required for its accomplishment is a steady, persistent, united effort on the part of those most interested—the farmers of the United States.

The President: Although the paper of Mrs. Senator Dunlap appears on the program for the evening session, it has been decided to favor the lady with the present hour.

Mrs. Dunlap then read the following paper on "Household Economy:"



MRS. H. M. DUNLAP.

they with their children subsist—they do not live—from day to day on soft white bread, pale, corpse-like looking pies made from lard, and soft flour cake and "sauce." Who could wonder under such circumstances that most of the rural population feel that theirs is the hardest of all "lots," that their occupation the least remunerative, bringing the least happiness. They crowd our cities, accept positions that are not either remunerative or refined, live crowded in small, illy-ventilated houses rather than to remain in God's country. This is solely due to food. Our bodies are built of food and pure air. As they have the pure air their shortcomings are due to food."

We know that much of what she has said contains truth. Our failings, unhappiness and ill-health may be attributed to the kinds, quality and quantity of foods we eat.

Statistics say that more farmers and their wives are in our insane asylums than any other class of people according to the proportion of population. Now what does it mean? Many cast the fact away from them, saying, "Oh! well, that is because they have to work so hard and have less chance for recreation." No, if the facts and truth were known the cause lies more in the foods they eat than anything else. The food prepared for them and which they are obliged to eat is not a perfect food ration, and so does not supply the mental and physical demands made upon them by their occupation, and hence the cause of the mental and physical wrecks we see among the farmers.

It is a recognized fact by many scientific minds of to-day that there is not a subject before us of greater importance than the foods we eat. Ellen H. Richards, of the Institute of Technology, of Boston, says: "The prosperity of a nation depends upon the health and morals of its citizens; and the health and morals of a people depend mainly upon the food they eat and the homes they live in." If in her superior knowledge of these things, of which she has made a special study, she should speak so strongly, are we, as home-builders, doing the best that is within us, by the study of food, its use and preparation, by cultivating a love for the work of home-making, and while striving to better our own con-

Household economy, a subject of vital importance to all, man and woman alike, for by it all are more or less affected, according to their environments or condition. Especially do I feel its importance in all rural homes where nature does so much for the health and happiness of those within, but where much of the good is destroyed by the ignorance of the proper preparation of foods to feed the body for health and growth, and lack of interest or knowledge pertaining to the home in all its phases.

Mrs. S. T. Rorer, one of our best authorities, being one who has made it a study by spending months in the midst of farmers' families, studying their foods and habits, says of us: "As I looked at the pale faces about me who have an abundance of fresh air and water, and surrounded by the beauties of nature in abundance, I felt that a reformation in diet would be a work worthy of a philanthropist. The food of nature in abundance going to waste while

ditions also extend encouragement and help to those surrounding us? No greater work is before us as American women to-day than to perfect ourselves in household economy in all its branches. Much dissatisfaction we see depicted on the faces of the women that surround us, and it is caused mostly by them battling with ignorance in household matters. They don't know how, and so they think they despise, abhor that which should be their delight.

There are always two ways of doing things—"the better and the worse." In the home we all need the better way, and so make as little drudgery of it as possible.

The beginning of better conditions in the home, I feel, should start with a better knowledge of food, its use and preparation for man. We are creatures of habit: we form a liking for some foods and a dislike for others, regardless of their value to us as individuals, and have been living all our lives feeding our palates and taking no thought of the need of the body. I know how firmly this habit of eating foods is fastened upon many, in fact all, of us. I have never had so much charity for those who have formed the taste for alcohol and tobacco as the last few years, since I have been trying to overcome many of my habits of eating and living that I have indulged in since childhood. Our habits embrace us with such tenacity that when we try to break them we find they are like iron to cast asunder. Hence how important that we as guardians of the home should know how to form tastes in the children of our homes for proper foods, so that in after years they may not have this struggle with their appetites. Oh! to me as I have been led to see it, this food question has become of such vital importance that I wish I had the power to help my fellow-beings to grasp it, and then have a desire to apply the knowledge already gained in this direction to their own lives.

When I say to one suffering from one of the many ills of life: "Don't you think your food or manner of living has anything to do with your sickness?" the reply usually is: "O, no; I am naturally nervous;" or "I have had to work too hard," or "I inherited a weak stomach." I find it is attributed to anything but the food they eat.

We are called at this time a nation of dyspeptics, and I am beginning to believe we are, for where can you find any one free from stomach trouble? Did you ever try to? If so, did you not find it quite a rarity? They may say, O, they have no trouble with their digestive organs, while all the time they are suffering with rheumatism, liver and kidney troubles, which owe their origin to a disordered stomach. One writer says: "There are but two sources from which disease or inharmony may come; one is from the stomach, the other is from external contact or exposure. A healthy stomach will repulse any and all outward enemies, but an unhealthy stomach furnishes no power to resist the encroachment of disease but instead aids the enemy by its own inharmony."

You hear people saying, all about you: "O, I would do anything to get well!" Let us see if they would. Perhaps coffee and tea as stimulants should not be in their diet of food and the physician prohibits its use, and they exclaim: "Oh! doctor, I cannot possibly live without it." Perhaps an excess of sweets is undermining the constitution; you remonstrate with them and 'tis: "O, what is the use of living if you cannot have a few things you like!" You speak of pie and rich desserts, and they say: "O, that is all foolishness! a little pie will hurt no one." And so I might continue.

We require certificates of our physicians and druggists, but not of our cooks, who may slowly poison us with the foods they prepare for us and we never question the matter. If we had certificated, educated cooks, we would lessen the number of certificates to doctors and druggists. We employ a physician, and it is the exception if they say anything about our food, when, perhaps, it is at the foundation of all our trouble. They prescribe medicines of the most deadly poison, and we submit, placing our lives in their hands. We ask them about the food best to eat—they

hesitate, and say: "Well, perhaps it would be best to eat something light and simple for a few days." You ask, "What?" and they look at you in astonishment, as much as to say: "Why, don't you know?" and that is all you can get out of them, because they don't know themselves. Food, in the past, has not entered into their curriculum of studies as much as it will in the future. I believe we will employ them some day to keep us well. Then it will be to their advantage and glory to prevent disease, and doctors will not say, like I heard one saying the other day, "that he was employed not to prevent disease but to cure it."

This subject of foods has made an advance in the minds of many, because of the work done in that direction by Edward Atkinson, of Boston. He has done a grand good work in experimenting with foods, their use and preparation. His book on "Nutrition of Foods" should be read by all. He invented the Aladdin oven, the principles of which I believe will be utilized in the preparation of foods more and more, as a more scientific knowledge is acquired.

A thought comes here in connection with this subject of great moment. Are we educating our girls properly and wisely when the one thing that perhaps they will need most all their life is relegated to obscurity, and if any knowledge comes it is only secondary? To illustrate: I recently learned of a highly educated lady having passed with honors through one of our eastern colleges and then married a graduate of Cornell University. They went to California to commence their life work, and of course the first thing to be thought of was the home. A friend of mine met this lady one day in the midst of the home building, and found her in tears. She said: "O, why have I been taught everything but that which I as a woman need most in all my life work—the making and building of a home, in every sense of the word!" Feeling so keenly her own deficiency as a woman, she has gone to work mastering that science, and to-day is using her pen and voice advocating the teaching of this science in our public schools and colleges.

In Norway a new law has been passed which makes girls ineligible for matrimony until they are proficient in many of the household arts. Certificates of proficiency have to be earned, and without these no girl can marry. Is there not a lesson for us as Americans right there? Only, perhaps, we do not care to have it quite so stringent. Might not a different education for our girls correct such condition of affairs that we read about every day—as, for instance, in every ten marriages in Wisconsin there is one divorce?

A little poem so aptly describes many of our modern girls that I feel that I must give it:

"She can talk on evolution;
 She can proffer a solution
 For each problem that besets the modern brain.
 She can punish old Beethoven,
 Or she dallies with De Koven
 Till the neighbors file petitions and complain.

 She can paint a crimson cow-boy,
 Or a purple-madder plow-boy
 That you do not comprehend, but must admire.
 And in exercise athletic
 It is really quite pathetic
 To behold the young men round her droop and tire.

 She is up in mathematics,
 Engineering, hydrostatics;
 In debate with her for quarter you will beg.
 She has every trait that's charming,
 With an intellect alarming:
 Yet she cannot—O, she cannot, poach an egg!"

Too many of our girls are educated and reared as the one described in the poem, everything being brought into her education but that most needed, the knowledge of domestic economy. We could have more of the ideal home-keepers and makers if our girls were only trained properly

and had inculcated within them the proper ideas of the home and the relation of the wife and mother to it. We *must not* educate our girls as they are being done now, away from the home, but towards it, and a better understanding of it in every respect.

I had never given this subject of foods any special thought and study until a few years past. I thought if I cooked somewhere near like my mother, and fed their palates, that I was doing all that was required of me. But what a mistake. We should eat with a knowledge of the foods eaten, their nutritive value and wholesomeness.

It is not from superior knowledge of these things that I have been led to say these few words, but from enthusiasm recently awakened that showed to me my own ignorance of many things that would help to better my home. I know now what a little knowledge rightly applied will do towards better foods, consequently better health for the family, and also towards lifting the burdens of a busy housewife.

One of the greatest desires I have to-day is, that I may yet be able to take a course in scientific, hygienic cooking. If it should not be gratified I intend to go forward as I have in the past, gaining what help I can by my own individual exertions, with the helps that are already attainable. There are two magazines I would like to speak of here that I have found of incalculable value to any one interested in better foods and better homes. "The Household News" and "American Kitchen Magazine." If one or both could be found in every home in the land what a reformation would speedily follow if they were read, studied and the knowledge gained applied to the home. I wish I could impress upon every farmer's wife the necessity of and value it would be to her to commence some work in this direction. Women, as a rule, have the best interest of their homes and loved ones at heart, why can't they see that it is necessary to make a radical change in the foods and habits of living of the members of their family to ensure them happiness and health.

When we learn the scientific methods of cooking we will not go at the work with a feeling of uncertainty. We will know the best and easiest ways and may expect the same results every time, and not talk any more about "luck." When we set a sponge for yeast bread we need not be in a state of anxiety until the process is completed. Our bread will be good every time, for scientific principles instead of the unreliable quality of luck will govern the process. Please don't let the term scientific cooking confuse and dismay you. Science does not make it formidable; it is ignorance that burdens our house-wives and brings discomfort into our households. Science makes cooking easy. Do not understand me as saying that science, as applied to our cooking, is something new. Many of our mothers learned and applied some of its principles, but they only found them after going through many tedious years of experimenting. The old-fashioned idea that long years of experience are necessary to make good housekeepers is not true under the new condition of things. In eight lessons, under a competent teacher, you may learn the fundamental principles. One of these is that fresh meat must be put on to cook in hot water; salt meat in cold water. Do you not realize that when you know the right way of doing things that you will no longer dread doing them? To those who do not like housework it is a real martyrdom to do it, especially when not fortified with definite knowledge of how it should be done.

My heart goes out in sympathy to this class of farmers' wives, and I hope the time is near when, in our country school-houses, a series of cooking lectures may be given during vacation for the benefit of themselves and their daughters. It might cost \$50 to get a teacher to give 8 or 10 lectures, but if, in these lessons, you learn the fundamental principles, the value can not be worth less than several hundred to one community. And if 50 women and girls take, the price would be \$1.00 apiece.

In these lectures the teacher cooks the bread, meats, vegetables, cakes, &c. Another form of lessons may be given where each pupil makes everything under instruction, and in that way is sure of getting a practical knowledge of all the details.

Now don't feel that this is something to be avoided and feared on account of the impracticability of commencing some individual work in the matter. I know of one lady who has made some advance in this direction who has never been able to gain any help, comparatively speaking, only from what she has read, studied and then applied in her own home. She feels that she can not calculate the value of the knowledge she has obtained in that way. Don't think that you must attain at once to your standard of the ideal, but that a little each day of better methods of doing things, preparing food, &c., in the aggregate of many days will show results beyond your expectations. Of course, I know there are some women who are satisfied with their present state of affairs; the foods they eat and the way they accomplish their work; but it is not to that class that I am speaking.

Edward Atkinson's statement that 5 cents a day per head is a low estimate of what may be saved by more skillful cookery should appeal to all who read to see if his statement may not be carried out and proven in our own homes. "By many it is thought to be meanness to count the cost and waste nothing." Hester M. Poole says: "To allow children to come to maturity with careless and destructive habits is a sin. The extremely poor, through ignorance, are generally wasteful. Living from hand to mouth, they expect to lay up nothing and succeed. Given good sense, industrial training and proper habits and poverty would disappear. All hinges upon individual development. That begins with the home." And so even we, in a limited way, can begin to better human kind by first setting our own homes to rights, and by it will be diffused light and cheer to the surrounding ones.

Better foods would do much towards solving the temperance question. Half starved and poorly nourished bodies must have stimulants, or at least nature craves something to satisfy what is lacking, and it is often found in alcohol and tobacco. Our temperance workers would do well to study the food question and see if the same effort put forth in that direction that they are doing in getting laws to prohibit its sale, would not bring better results towards decreasing temperance in the land. The desire and use of alcohol is a disease and must be treated as such, and, consequently, foods will have much to do in curing that disease, as it does all diseases that man is heir to. Our laboring men are unhappy and dissatisfied because of being ill-fed. They live on white bread, often bakers' bread, from which all the nutritive qualities of the grain has been extracted, and potatoes, with a limited supply of meat, and need we wonder at their condition.

Our criminals are fed on foods indiscriminately and without any regard as to their value in feeding mind and body and helping them overcome the disease of sin. What a work for a philanthropist to know and establish a better diet for our criminals. As we enter into this study of home improvements we will be surprised to find how much there is in it for all of us in many ways. We have many articles of convenience that are of inestimable value to the house-wife of today, but where can the busy farmer's wife learn of them. I hope the time is not far distant when all that pertains to the home of our farmers and their wives will be made of as much prominence in our farmers' institutes as the best ways of plowing for grain, planting an orchard, feeding hogs and cattle for profit. Then this information can be disseminated in this way. Not but what I appreciate the importance of these things, but also equally

as much the importance of the other. We find too many farmers who take too little interest in home conditions. They think it is foolish for their wives to want a little machinery to do their work with, even if it is so simple a thing as a new egg beater or a convenient ironing board.

Too often the good house-wife is found without any money in her pocket-book which she calls her own and to spend as she thinks best for the improvement of her home and to obtain the useful helps. How I wish the tables might be turned in *some* homes and the women could carry the pocket-books for a while and then when a new plow was thought to be needed or the latest patented harrow, that the wife might be consulted before it was purchased.

I am not a theorist on this matter, but an observer living among them, knowing of their conditions, and in fact it is surprising to me when I see how little cheer and how few helps are brought into our farm homes, that the women are able to provide food cooked as well and palatable as it is. Our homes should be the happiest spots on earth, and every effort should be put forth to make them so and I hope our county farmers' institutes will begin some practical, earnest work in this direction. Knowing that what improves and benefits the home will create an increase of happiness and contentment therein.

I hope to see the time when we can have demonstration lectures given at many of our institutes on foods, its use and preparation for man. By so doing we could get an interest awakened among the farmers and their wives on the value of better foods. Let us at least agitate the subject, and by so doing much good may eventually result.

Indeed the time has certainly arrived when we must make food for man a study; its getting and its preparation. For "what a man eats that he is."

Mr. L. H. Coleman, of Springfield: Mr. President, We have just listened to a magnificent paper on one of the most important subjects now before the American people, and this institute should give further consideration to the matter. I therefore move that the chair appoint a committee of two ladies and one gentleman to formulate a plan and present the same to the State Board of Agriculture looking to the establishment of a school of Domestic Economy to be conducted on the State Fair ground during each annual exhibition.

The motion of Mr. Coleman was adopted, and the President appointed as said committee Mrs. H. M. Dunlap, of Savoy, Mrs. Morrisonville, and Mr. L. H. Coleman, of Springfield.

The Institute then adjourned to 7:30 o'clock p. m.

EVENING SESSION.

The Institute met at 7:30 o'clock p. m., pursuant to adjournment, with President Palmer in the chair.

The President: The Institute will now come to order. It gives me pleasure to present Major Thompson, of Joliet, as the presiding officer for the evening session. Mr. Thompson needs no introduction, and all present will join with me in thanking Major Thompson for the efficient aid rendered as a member of the last General Assembly in the passage of the bill creating the Illinois Farmers' Institute.

Mr. Thompson then assumed the chair.

The President: The first address will be that of Mr. A. G. Judd, of Dixon, the well known President of the Lee County Farmers' Institute, on "The Farmer's Home."

Mr. Judd read as follows:

THE FARMER'S HOME.



A. G. JUDD.

has led the world. Furthermore, careful thinkers have estimated that our agricultural resources alone, when fully developed, are capable of feeding *one billion* people or sixteen times the present population of this great country. It is also estimated that by 1900 there will be at least forty million foreigners among our population, by far the greater portion of them ignorant; also, that about one-half of them will be engaged in agricultural pursuits.

These people, hampered as they surely will be by ignorance of our land and its resources, unaccustomed to our ways of farming, are to be *enlightened*, else the sentiment against farmers and farming as a calling will be increased. With them and the *native* American there is only one impulse in common—the desire to make money. Matthew Arnold said of Chicago, "Too beastly prosperous;" and is it not true that with us as a nation the moral and intellectual growth bids fair to be *stifled* by the *ever increasing* zest with which we pursue the material?

Fully 70 per cent. of the exports of the United States are furnished by the farmer. It is said that we pay 80 per cent. of the taxes collected for the maintenance of the government. Do we receive anything like 80 per cent. of protection for the farmers' products? If not, why not? Simply because we as a class have fallen into the habit of accepting as *inevitable* things which might be changed with a little effort on our part.

By acting in unison we could *compel* the passage of *pure food laws* which would shut off the fraudulent goods that bankrupt the farmers' markets, and protect us when we exchange our pure dairy butter, cheese, wheat, oats, corn and various other farm products against the rascals that give us sanded sugars, chicory coffee, glucose syrup, acid vinegar,

Away back in far off ages God busied Himself in fitting up a dwelling-place for man. Then was founded the *profession of Agriculture* and the first Farmer's Home. Ever since that time farming has been pre-eminently an honest and honorable calling; and while it offers no delusive hopes of speedy wealth, it promises to every earnest follower the just reward of his labors.

Herbert Spencer says, "There is no political alchemy by which you can get *golden* conduct out of *lead*en instincts." Well, neither is there any agricultural alchemy! The Rip Van Winkles of agriculture have been sleeping for more than twenty years, and the clarion notes of a new education are only beginning to arouse them from their lethargic slumbers. Agricultural *training* along *special lines* is the Rosetta Stone that will unlock fortune's hieroglyphics to the farmer

In manufactures, mineral wealth and agricultural resources, the United States for the past *ten years*

besides various other adulterated articles that enter into the food consumed daily by the people in general. Remember, *every pound of adulterated food robs the producer of pure goods of that much market for his goods.* Not only that, but the object of adulteration is to produce a *cheaper* article, and that *cheapens* the price of our goods. Again, the adulterated products not only take the place of our pure products and cheapens them in price, but they disgust the consumers, so that much less of those goods is used.

Think of it, brother farmers, this *great* State of Illinois, receiving 80 per cent of her support from the farmers, and then right before our eyes accepting a bribe in 1894 of \$1,200,000.00, paid by a few wealthy corporations for the privilege of substituting 60,000,000 pounds of oleomargarine, an absolutely unwholesome product, for pure butter, or the product of 450,000 cows. Is it any wonder that we have 20 cent corn?

Four hundred and fifty thousand more cows engaged to make butter, at \$30 per head, would put \$13,500,000 more money into farm property. If it costs \$25 each to keep a cow one year, it would require \$11,250,000 worth of feed and labor, and 45,000 men to care for them. Do you think our government has any great respect for the farmer's home? Is it any wonder that ideal farm homes are a sad minority when the dairy interest, which is the most lucrative to the farmer, is thus outraged?

Yet if that dread calamity, war, should befall our nation, the farm homes would furnish much the largest quota of able defenders, who would face the carnage of modern warfare without even stopping to stipulate that they should receive anything but oleomargarine, either during the long, weary struggle, or *later*, if perchance a kind fate should spare their lives to become inmates of some State charitable institution. Think of it! The American flag waving over every public school in the State, and the noble men who saved this Union and the Stars and Stripes, eating oleomargarine in our Soldiers' Home!

If we furnish 70 per cent. of the exports, pay 80 per cent. of the taxes, and furnish the largest proportion of the soldiers, why should not we count ourselves of some importance and live and act accordingly? Yet the average farmer does not. Of all classes of men he is most prone to live in the future. He carefully hoards the little gains of the present; the simplest enjoyments are denied; books, pictures, music, lectures, social intercourse, becoming dress, tasteful decorations for the house, are frequently foregone because they *cost money*. To take proper care for coming days, to avoid needless extravagance is the part of wisdom, but to impoverish the present for the sake of "*getting ready to live better*" in the future is folly. The *present* should be filled with what ennobles and beautifies life, else what is the use of living?

The typical "hayseeder" who takes pride in shocking the eyes of "citified" people by his utter disregard of personal appearance, who takes no stock in "book farming" and such new-fangled tom-foolery as Farmers' Institutes, generally leaves for his children as monuments of his ignorance and cussedness; farms *robbed* of their fertility, denuded forest lands, dead orchards and dilapidated buildings—an altogether too common sight as one travels over our country.

In striking contrast, we find here and there delightful types of the result of intelligent farming—homes which in every sense are *ideal*. Houses, beautiful in architecture and finish, furnished with reference to the comfort of the inmates; music, books, literature, all lending their delightful influences; spacious lawns, well filled barns, fields carefully tilled, sleek stock—look which way you will there is manifest prosperity directed by intelligence.

Now it is not my purpose to deal so much with what the ideal farmer's home is as with how it *may be secured* by a large majority of farmers, if they will, early in life, recognize a few essential principles of success, and avoid the extensive mistakes brought to light by the experience of others; and the experience of others is about the only thing we *get free* in this world.

1st. Farmers must admit that they do not know all there is to be known regarding their vocation, and that *education* pays as well in farming as elsewhere in business; that a business *becomes* important just in proportion to the amount of *brain* power expended in developing it; that the world *does* move; that the "up-to-date" farmer is passing from an era of *muscle* and 18 hours a day, to an era of *brains* and 12 hours a day.

2nd. It is the part of wisdom to put yourself in touch with the State Experiment Station and to receive and study carefully every bulletin issued.

3rd. Take the best agricultural or dairy papers published. One dollar pays for any of them now and they come every week and keep you posted in regard to new ideas and methods, best feeding rations, and what a balanced ration means, descriptions and illustrations of little contrivances for doing work that save much time, hard labor and often expensive machinery.

4th. It must be realized that every business mart in the world is assailed by the fiercest competition that education, combinations, wealth, skill or *dishonesty* can command, and that we have no corner on any of the markets.

5th. The progressive farmer *must* be in *favor* of hard roads. That is a problem that will soon demand the attention of every voter in the State. Be ready for it.

6th. Demand of the next Legislature an appropriation for a State Dairy School. The *dairy cow and hog* will build more good farm homes than all other branches of farming combined! Why? Because the up-to-date dairyman will study his business and learn that a pound of butter, a gallon of milk and a pound of pork can be *produced* the cheapest, and sold for the greatest profit of anything raised on the farm, all things taken into consideration. If dairying were my subject I would tell you how to raise a calf with less than a dollar's worth of milk of any kind; how to keep a profitable dairy herd without a pound of hay or ground food of any kind, and the cheapest and best method of handling corn fodder. O, what a field for study and improvement!

Farmers as a class are prone to draw isothermal lines between themselves and the great energetic, pulsating world around them. *Intercourse* is the key to progress, and this one element which some farmers so affect to despise, together with the diffusion of literature are the two greatest agents in moulding the habits and lives of business men.

Does the intelligence of farmers need be increased? When we consider that *lack of proper feeding of animals* in this State results in a loss of thousands of dollars annually, when we see the dogged determination to *fight* hard roads to the last, the unwillingness to pay a dollar to join an active Farmers' Club, then we say, "Yes!"

Many farmers have been too intensely practical and have taught their boys that there is nothing to farming but plowing, sowing, cultivation, harvesting, occasional rotation of crops, and raising hogs, beef and making butter. They seem not to know that there are *many* ways of even plowing or sowing or cultivating, and perhaps a much better system of rotation, and greatly improved methods of making butter and pork and beef, all helping to solve the problem of "cheapest production and greatest profit."

I tell you, the very first thing for the farmers of the State of Illinois to do, if they are to be in the van-guard of this progressive wave which is sweeping over the country is to recognize the worth of our State Agricultural School and of thoroughly organized Institute Work.

Our great State was the *first* to ask Congress the grant of public lands to establish Industrial Colleges, and when in 1862 the law was passed, she was among the first to accept the grant and entered enthusiastically into schemes for the organization and location of the school. In 1867 it was formally located at Champaign, and in 1868 it was opened for students. In Section 4, Act of Congress, 1862, we read: 'Its LEADING OB-

JECT SHALL BE, (without excluding other scientific and classical studies and military tactics) to teach such branches of learning as are *related to agriculture, etc.*" * * * Splendidly endowed by Congress, and by numerous appropriations, it is eminently fitted for giving a magnificent education, and the fact that the *agricultural department has not kept pace with the other departments is the fault of the farmers themselves—they do not patronize it as they should!*

Only 35 attended the short winter school of '95, and out of 810 enrolled in the various courses there were only 16 pursuing the regular Agricultural Course!

Now look at our sister State to the North! She is head and shoulders above us so far as interest in the agricultural education is concerned. For the year 1895, her total students in the short course was 102 against our 35! and many refused admission for lack of room. In the long course 213 as against our 16!

Between December 3d and March 6th she holds 99 Institutes and there are in the State 67 counties. Out of our 102 counties only 49 have reported as organized for Institutes prior to this winter. What's the matter with the farmers of Illinois? Are we waiting for a Hiram Smith to lead us out of the wilderness? Since 1887 the Wisconsin Legislature has appropriated \$12,000 annually towards their Institute work, and so great is the demand for their yearly bulletin that the last issue was 50,000 copies.

Do you think it pays, this Institute work? On page 23 of the '95 Bulletin I find this statement: "Farm Institutes encouraged the farmers to build 38 butter and cheese factories within ten miles of Beaver Dam, Wisconsin; paying in cash annually over one half million dollars to the farmers for *milk*; adding over one million dollars to the wealth of Dodge county in the past seven years since the first Institute was held in this county."

Another grand result is the passage and enforcement of laws abolishing the manufacture and sale of bogus butter and cheese within the State.

We are behind our sister State, but there begins to be a "rustling among the dry bones" and we are going to *get ready to "progress!"* And this kind of progress will develop "The Farmer's Home" into a place where great wealth is not the standard, but where children, wife and husband are united by bonds of love and unity of purpose, working together intelligently, living useful, honorable, comfortable and peculiarly successful lives.

Far be it from me to refer to the past of agriculture in any slighting manner. If our fathers had not given of their practical experience to us we should not be where we are to-day. But surrounded as we are by unlimited opportunities for improvement *it is a crime* to lead the contracted lives which from untoward circumstances our fathers were compelled to! Let us make *time* for the rising generation by doing all in our power to *hasten* their knowledge of what we learned only by bitter experience, and of *that* which bitter experience has taught us we have yet to learn!

"*Preaching*" to the young about the advantages of farm life will have little effect on their views. But if they *see us* working intelligently and planning to make the old homestead beautiful for generations to come, to build a home that compares favorably with the average city home in which to end our days, when they see us enthusiastic in our labors as well as financially successful, then they will begin to think with us that the Farmer's Home is a desirable place, and they will not leave all that we have made so delightful to them to follow with feverish eagerness the uncertainties of city life.

Matthew Arnold has truly said that America holds the future; and let us all as firmly believe that in the Farmers' Homes is held the future of America!

The President: It is a pleasure to introduce to the Institute a freshman student, Mr. A. D. Schamel, from the agricultural college of the University of Illinois, who will now address you on the subject, "The Farmer Boy."

Mr. Schamel was selected by the agricultural class to represent the University at this Institute.

Mr. Schamel spoke as follows:



A. D. SCHAMEL.

"Blessings on thee little man
Barefoot boy with cheeks of tan.
With thy upturned pantaloons,
And thy merry whistled tunes;
With thy red lip, redder still
Kissed by strawberries on the hill;
With the sunshine in thy face,
Through thy torn brim's jaunty grace.
From my heart I give thee joy,
Blessing on thee barefoot boy."

As he grows older he carries water to the harvest hands and threshers. He has a burning desire to be able to control the puffing steam engine, so the engineer tells him the way to become an engineer is to begin by breaking up coal, which he does quite unsuspectingly. The annual hog killing is a time of intense interest to him, and he would sit up all night to broil the tenderloin and eat the first piece of sausage. Christmas brings to the little boy as much happiness as any other child. There is the Christmas tree at the country church or school house. The stockings hung up at home are filled with candy and boughten toys. He gets a toy pistol or a jack-knife, which he afterwards trades for that pair of skates he has wanted so long, as described by James Whitcomb Riley:

"Had a pair of skates onct, traded
Fer 'em, strapped 'em on and waded
Up and down the creek awaitin'
'Till she'd freeze up fit fer skatin'."

The farmer's boy goes to the district school, where he learns more than the boy in the city's crowded wards. He plays the good old-fashioned games—blackman, town ball, whip cracker, Indian, builds houses, runs railroads, erects snow forts and snow men, and ends with a snow battle. In the morning and evening he does the chores, milks the cows, feeds

I suppose there are very few men in this audience who were not at the beginning of their career farmer boys, so of course it is unnecessary to tell you that the farmer boy begins his existence much as any other member of the great human family. As soon as he is able to toddle about, he is allowed to wander outdoors and make friends with the chickens and cats. He is interested in the little pigs, lambs and calves. His occupations are making mud pies, building little boats, playing in the sand heap, making willow whistles, bows and arrows, and riding a broomstick horse. In the spring he wants to go barefooted before the snow has melted away from the north side of the hedges. His life at this stage is depicted by Whittier in the "Barefoot Boy."

the horses, churns, chops and carries in wood. He is early taught to depend on himself, and his inquisitive mind is continually trying to learn the causes for the many things he sees about him. He runs a stick down a little hole when he hears a low humming sound. His curiosity is instantly satisfied. A dozen angry bumble bees are about him and their sharp stings lend wings to his bare feet as he vanishes from the scene of his experiment. In the early summer he eats the apple, which in his imagination blushes red and the peach of emerald hue, like "Little Johnny Brown and His Sister Sue," in the poem; and though the consequences are seldom so severe as in the case of the Brown children, still when he recovers he is a sadder and wiser boy.

As time goes on he makes a full hand on the farm in the summer and goes to school in the winter after the fall work is done. He also has time for recreation. There is the country picnic. "Ah! Yes! the dear old-fashioned picnic, with lemonade and peanuts, shady groves, long walks, two by two, and late returning with fingers berry-stained and shoulders garlanded by plaited leaves, wild flowers in belt and buttonhole, and how many withered dandelions blown to wind for Cupid's forfeits only the young folks know." During the long winter evenings he goes to apple cuttings, singing schools, spelling matches and the meeting of the country literary societies. But better still the country party, those good old games, Blind Man's Buff, Drop the Handkerchief, Old Dan Tucker, Weavely Wheat, Little Brown Jug, Dish Rag and Hurly Burly, flourish in perennial youth. After merrily dancing to the tune of the old fiddle until late at night, the young folks leave, and what matter if they do take the longest way home. And then there is hunting, for who ever heard of a country boy who didn't find some time to hunt? His weapon is usually an old bored out musket, and when he fires the result usually is that before he picks himself from the ground the game is out of sight, but he seldom returns home empty handed. The country boy of to-day has a great advantage in this respect over his predecessor, for by killing the festive English sparrow and selling their heads for two cents apiece, he has an unfailing source of pocket money for ammunition.

These are a few of the things that have occupied the farmer boy's youth, and he has now reached the dawn of manhood. The combined results of his previous training and outdoor exercise have made him strong in mind and body, industrious, economical and free from bad habits. And when to natural talent they have added energy and ambition, he will make his way to the front in every profession and business occupation he may enter. After I knew I was to read this paper, I wrote to a few of our prominent Illinois business and professional men, asking them what benefits they had derived from an early life on the farm. Phil D. Armour, the millionaire packer of Chicago, answers me: "I attribute the foundation of my success in life to a father and mother healthy in mind and body, and to economy, thrift and industry, which must be taught on the farm. The health and physical strength I inherited, were greatly promoted by my farm duties, and is the first principle of my success in life." Congressman Joe Cannon says: "My early life on the farm gave good muscle, bone and digestion." Some farmer boys do not seem to appreciate their advantages. Editor Kohlsatt, owner of the Chicago *Times-Herald*, states that his experience as a farmer boy consisted in milking a cow, taking care of a horse and feeding pigs, all of which he disliked very much. He envied the town boys, who never had that sort of work to do and could play after school.

Starting then with the country boy grown to young manhood and ready to begin life for himself, what course shall he pursue? Shall he make his home and gain his livelihood in the country, or shall he seek his fortune in the city? For the purpose of our discussion we may divide farmer boys into two classes, those who may reasonably expect to inherit land and those who will inherit nothing.

This naturally brings us to consider what are the comparative advantages or disadvantages of city or country life for these two classes of farmer boys. Suppose the young man who will some day inherit a farm

goes to the city. If he has already received his inheritance, his modest fortune will not be able to compete with large established firms and great wealth and his small competence will go to swell the great fortunes of the city. But on the other hand, if he remains in the country, his money will be comparatively powerful in his rural community; will bring him a steady income and be a safe investment. If his parents are living and he has not received his inheritance, which will embrace the great majority of instances, for at the age our farmer boy now is, his parents are usually living, he will simply go to the city and enter into crowded competition for salaried positions. His salary will be small and he will be compelled to board at a cheap boarding house, where he will get tough meat, thin milk and poorly cooked food. On the farm he will have well cooked and wholesome food and plenty of healthy outdoor exercise. In the city he is apt to spend his money extravagantly and will enjoy very few social advantages, for there is no loneliness like that of a great city. While it is true that farming of necessity demands that people live somewhat isolated, so that country people may lack that polish only acquired by contact with great numbers of people, still, there is a hundred times more true sociability and friendship, more cheerful aid in sickness and in trouble, more natural healthful fun in the country than at all the music halls, theaters, beer gardens and saloons, which are about the only amusements open for a strange young man in the city. In the city the tenure of his position is uncertain and men are not sure of employment. Agriculture is permanent. Its practice begun in the gray dawn of the earliest civilization and is the indispensable foundation of the high civilization of the end of the nineteenth century. To maintain the activity and warmth of the human organism, food is as indispensable as is coal to furnish the energy of the steam engine. As Webster expresses it: "All national wealth depends on an enlightened agriculture." Why? Because it furnishes this food.

Of course, if the young man has a special talent for a given profession or business occupation, and, after due consideration, is willing to pay the price of success, let him do so. But let him be certain of his ability. A young man chose the ministry for a profession and his grandmother asked him why he did so. "Because I was called, grandmother," he answered. "Aren't you afraid it was some other noise you heard, Jimmy?" said the old lady.

We are now prepared to discuss the condition of the farmer boy who will have no inheritance. About the only occupation open for him is to work for a small salary in the city or to work on the farm as a hired hand. In the city his expenses will exceed his salary, and he will not be able to even set up for himself in business. On the farm he can secure continuous employment, and if he is economical he will soon be farming for himself.

Another important question naturally arises at this point of our country lad's life, whether a university or higher education is desirable. To one who has chosen to be a professional man, the question answers itself. The State Boards of Health, Pharmacy, Dentistry and the Supreme Court prescribe the professional education necessary before he will be admitted to the practice of medicine, pharmacy, dentistry or law. But the farmer boy we are chiefly interested in here is the one who stays on the farm. If the professions of medicine, dentistry and law require courses of special training, should the man who follows the most ancient, universal and honorable occupation of all not have scientific instruction in the secrets and details of his occupation? The farmer should be an intelligent and educated man. If only for his own enjoyment and satisfaction he should be well read and capable of appreciating the thoughts of the great minds of the ages preserved in literature and the wonderful and useful disclosures of the scientific research of to-day. The educated farmer may be a power in his community, and if he is called upon to represent his district in the legislature he should be able to do so. It was a farmer who believed in a higher education who told his neighbor that his son had taken first prize in oratory at the university. "Going to make a pro-

professional man out of him?" inquired the neighbor. "Oh, no; his specialty is agriculture," replied the first. "I tell you, the lawyers in our district will have to hustle if they get in the legislature after this." In recent years the practice of agriculture has become so intensified by reason of competition that scientific methods must be resorted to in order to preserve the supply of plant food in the soil year after year. These methods are taught in our agricultural colleges, established for the purpose of educating the farmer boy. All subjects pertaining to agriculture are taught by educated and scientific men, and the need of this education is beginning to be felt.

Now, I am practicing what I preach, for I am taken the agricultural course at the University of Illinois at Champaign. I have three brothers, all older than myself, one being a lawyer, one an editor and one a doctor, but I believe that I, or any young man who sticks to the farm, have more chances of success and true happiness and fewer chances of failure and disappointment than those boys who leave the farm to make their fortunes elsewhere.

With an early practical training on the farm, which has taught him the practical arts and details of agriculture, with a scientific education at an agricultural university, which has taught the reasons and fundamental principles that underly the art and practice of agriculture so that he is able to intelligently apply the forces of nature, the discoveries of science and invention to his occupation, with a well nourished, healthy body, surrounded by the uplifting influences that bathe those who live near to nature with an educated, trained mind, uncontaminated by the deadly vices that flourish in the polluted moral atmosphere of the city, aided by all the mechanical inventions which rob farm life of the larger part of its exhausting manual toil. What a prospect of usefulness and happiness is open to the farmer boy at the end of the 19th century.

Let us lift the veil of the future and look upon the beautiful picture stretching before us. We see beautiful homes covered with vines and flowers, set in lovely groves of trees laden with fruit. The home will be comfortable, healthy and pleasant. Shelves of the world's best books, pictures of noble, elevating and beautiful scenes, papers and music will be the constant companions of the boys and the girls. What has been the history of the past? What is the prospect for the future? With good roads and quick communication, farmers will be brought in touch with the world. An easy market will be found for their produce. Inventions will more and more lighten the burden of farm work as tireless machines will largely take the place of human labor. The farmers will cultivate well and without waste; they will so build that their houses will be warm in winter and cool in summer; they will plant trees and beautify their homes; they will occupy their leisure in reading, in thinking, in improving their minds and devising ways and means to make their business profitable. They will cultivate sociability and come together more often; they will have reading rooms and cultivate music; they will have bath rooms, ice houses and good gardens; their nights will be taken for sleep and their evenings for enjoyment, then everybody will be in love with the fields. Happiness should be the object of life, and life on the farm will be made more happy. The farmer boy will grow up to love the meadows, the streams, the woods, the old home, and around the old farm will cluster the happy memories of delightful years.

The President: The next should be an address on the subject of "Mutual Farm Insurance," by S. H. Alexander, of Lockport, but he is not present, and therefore a few remarks on the subject will be made by Mr. H. T. Strange, of Walshville.

Mr. Strange, premising that he had nothing prepared for the occasion, stated that there were nearly two hundred Farmers' Mutual Insurance Companies doing business in the State, representing the most earnest, intelligent and progressive Illinois farmers and a vast amount of capital, and saving to the farmers of the State a vast amount of premiums that otherwise would go to swell the coffers of wealth in other States. These

companies were growing, and the Secretary of the State Association had remarked to him this evening that the increase had been especially great during the present year, and that the interest being protected by sufficient legislation was likely to continue to grow in future.

The President: The next address will be by the Master of the State Grange of Illinois, Mr. Wilson, on the subject of "Co-operation of Farmers."

Oliver Wilson, of Magnolia, first stating that co-operation by the farmers had really been the subject all through the sessions of the Institute, and that without that purpose in view the organization of the Farmers' Institute would not have occurred, then read the following:



OLIVER WILSON.

The uniting of the efforts of persons in a common interest to reach a common end has been practiced from the early ages of mankind; sometimes it has been recognized by one name and sometimes by another, but the idea underlying the whole has contained the same principle, and today we express the thought embodied in it by the word co-operation.

United we stand, divided we fall, has been the watchword of most of the great movements of the past. It has bound heart to heart and has been the main-spring which has given impetus and strength to all those great undertakings which have proved successful. The Grange and other farm organizations have taken up this thought and are trying to apply it to the tillers of the soil. Twenty-five years of experience in Illinois has wrought a vast change in the social condition of the sons and daughters of the farm. It is not only possible but common to

hold social and literary gatherings in almost every community, each trying to accomplish the same object in literary advancement.

Neither has the application of this principle been felt alone in the social life, but it has touched the educational line and we believe here its power has been most felt. Organization and co-operation, for they are inseparable are teaching the farmer that he is entitled to the same social and political right as those in other callings, and that if he will assert that right and qualify himself for those positions he can stand the peer of any class or profession. Co-operation may exert its power in the political field in making and executing just laws that the burdens of government may be borne equally by all classes. Another branch of co-operation can also be carried on by the farmers besides the social and educational, and by the application of this branch we have learned that in the financial world large fortunes are made by the people co-operating to secure a certain end; if this is true in other lines of business, it has been found to be none the less true with the farmer, and surely there is no class more justly entitled to the benefits of co-operation than the producer. I am aware that there are those of even our own class that will raise their hands in holy horror whenever the subject of farmers' attending to their own business is mentioned. We have been accustomed so long to carrying our produce to the nearest market and almost timidly asking the buyer what he will pay, and in the same breath we will ask what will you take for your goods, thus giving the shop-keeper the privilege of setting the price not only on his own but our labor as well. Is there any reason or justice in this? Should not the farmer so co-

operate and educate himself so that he will know better than any one else what it cost to produce a bushel of wheat, a pound of pork or butter, or a dozen of eggs?

This is possible by organization and co-operation for us to know exactly the same as the manufacturer the costs of our products under the general conditions. I am aware that it will be harder to arrive at, will take more thought, more study and a closer union, but I repeat, it can be done. The farmer should also be the first to know the amount of grain and stock that is produced during the year instead of the last. You may ask what advantage will this be to him? The same advantage that it is today to the R. R. Co. and Boards of Trade, etc., who are spending vast sums of money to find out the condition of the farmer's crop that they may fix the price so he will not starve neither become a millionaire. But the question again arises what are we going to do about it? Would it not be wise and just for us to shut down and say that we will not sell a pound of produce until there is an advance in price, that there is an overproduction, and thus throw thousands out of employment and drive hundreds of thousands to penury and want? While it would be just as honorable for us to do this as it is for the manufacturer or the mine operator, I am not an advocate of such co-operation. Neither am I a believer in the general opinion of overproduction in either agricultural staples or manufactured articles. I have been upon many farms in our great agricultural State, and I have never found thereon an overproduction of good farm machinery. On the contrary, we hear the expression that this or that implement is worn, but we cannot afford, at present prices, a new one.

Neither have I in this beautiful Capitol City, situated near the center of the agricultural belt of the country, ever found, as I have gone through the long rows of tenement houses of the laborers, an overproduction of breadstuff, but I have seen in our great cities thinly clad children on the streets gazing wistfully into the shop window of the baker with a look that did not say we have an overproduction of food at our house.

Let us stop this hue and cry of overproduction, and no longer fling insult after insult at a great and wise Creator, who has promised us a seed-time and harvest, by crying too much corn, too much wheat; it is all nonsense. The trouble is underconsumption, occasioned by several causes, most of which has been mentioned by others, and I will not take time to discuss them at length. A few causes might be mentioned. Unjust laws, whereby the rich can oppress the poor; the changed condition in our monetary system. The legalizing of that worst of all enemies to humanity and society, the liquor traffic, whereby not only individuals are becoming rich from the bread wrung from the mouths of starving children, but cities are making improvements on their streets for us to walk upon. Neither does it stop here, but the government as well has gone into partnership with the nefarious business. Also another cause may be cited for this misery and woe that exists, and that is the continued disfranchisement of the best half of the citizens of our country.

Farmers let us arouse and take up the old watchword, in union there is strength, and first organize ourselves into granges or kindred associations, then co-operate in securing just and equitable legislation that will bear exactly on all classes, that will allow supply and demand to regulate the price of our produce instead of being set by a few men who very largely control our markets. Also co-operate by sending our produce to the great markets of the world, direct, without passing through the hands of a lot of middle-men, who exact a greater per cent. profit for the work of a few hours than we receive for the years' labor to produce it.

I advocate the principle that is carried out by all other classes of business men, buy where we can buy the cheapest, and sell where we can get most money.

But here the objectors comes in again, it will never do, you must support your home town.

It is not my purpose to make war on any legitimate interest.

But we have allowed others to look after our business so long we are almost persuaded that we have nothing to look after ourselves. It has long been a question with me, that our business men who have contended that the farmer was in duty bound to support them did not feel a sense of duty resting upon him to support the farmer.

But I find when I take the few pieces of meat not needed for family use to the dealer in my home town, he very politely informs me that he has all he wants, that Armour's car has just passed through and he can buy cheaper of him than we can produce it.

The same is true when I take a load of potatoes or apples, there has just been a very fine load shipped in from Michigan or New York.

In conclusion, I would appeal to the farmers to organize and co-operate for mutual protection and advancement. Let us learn this text well, attend to our own business. Co-operation if rightly carried out can touch life at its various points, and thus make home happier, society better and individual life purer and nobler.

When co-operation has done this work then will come true the saying, "that the first shall be last and the last first," and the farmer who for so long has been last, shall be found in the front for all that stands for happy homes, for better society, for just, equitable and impartial laws, and for a purer and nobler manhood and womanhood.

OLIVER WILSON.

Mr. Palmer assumes the chair.

The President: Ladies and gentlemen of the Institute, the programme of the Illinois Farmers' Institute is now completed, and the work of the first annual meeting for this year is finished.

I desire to thank those who have been in attendance throughout our sessions here for their presence and encouragement. You have heard a number of able and interesting speakers, and you have shown appreciation for the papers presented. The management has doubtless made some mistakes at the outset of a new enterprise, in the arrangements of the details which experience will enable them to correct another year. Again I thank the people for their encouragement, and hope their co-operation will continue, so as to make this Institute better and better from year to year. (Applause.) We are now ready to adjourn.

The Institute then adjourned sine die.

ORGANIZATION OF THE ILLINOIS FARMERS' INSTITUTE.

The proceedings of the conferences and preliminary meetings of the Illinois Farmers' Institute Association, containing the history of the endeavor to secure legislation and perfect the organization of the Illinois Farmers' Institute, are as follows:

FARMERS' INSTITUTE ASSOCIATION.

The Farmers' Institute workers of Illinois have labored under the great disadvantage of having no organized agency for aiding the officers of County Associations in obtaining the best results from the holding of such meetings.

Hon. George W. Curtis, of Stockton, Illinois, at the request of a number of active Institute workers, addressed the following letter to the officers of the Farmers' Institute Associations in the following counties, viz.:

Adams, Bond, Carroll, Champaign, Clark, Coles, DeKalb, DeWitt, Ford, Franklin, Greene, Hancock, Henry, Iroquois, Jefferson, Jersey, JoDaviess, Kankakee, Knox, Lee, Livingston, Logan, Madison, Marshall, Mason, Massac, McDonough, McHenry, Mercer, Ogle, Perry, Piatt, Pike, Putnam, Roch Island, Sangamon, Schuyler, Scott, Union, Warren, White, Will, Winnebago, Woodford:

STOCKTON, ILL., SEPT. 14; 1894.

DEAR SIR:—The undersigned introduced a bill in the General Assembly providing appropriations for County Farmers' Institute meetings, which became a law in July, 1894.

My interest in Farmers' Institutes has increased with the development of this work in all parts of the State.

It is believed that the officers of County Institutes may be greatly aided in their work by an organization to be known as the Illinois Farmers' Institute Association, to be composed of a representative from each County Farmers' Institute in the State.

A State Farmers' Institute organization can render County Institutes valuable assistance in securing speakers, arranging programs, advertising meeting, etc.

Please present this matter to the Executive Committee of your Farmers' Institute, and in case the plan outlined above meets with your approval, appoint a representative to attend a delegate meeting on Wednesday, September 26th, at Springfield.

The State Fair will be held at Springfield September 24th to 29th, which will enable your delegate to attend the State Fair and the above meeting at very low excursion rates.

The hour and place of meeting will be sent your delegate as soon as name and address is received.

Yours truly,

GEORGE W. CURTIS.

The following delegates were appointed by the County Institute Associations, in response to the call of Mr. Curtis, to attend this meeting:

Counties.	Names.	Residence.
Champaign.....	J. C. Ware.....	Mahomet.....
Christian.....	Henry Grundy.....	Morrisonville.....
JoDavies.....	G. W. Curtis.....	Stockton.....
Lee.....	Anstin Powers.....	Prairieville.....
Livingston.....	John J. Taylor.....	Fairbury.....
Madison.....	C. W. Fangenroth.....	Edwardsville.....
Marshall.....	G. W. E. Cook.....	Lacon.....
Mason.....	H. C. Burnham.....	Havana.....
Mercer.....	W. L. Candor.....	Seaton.....
Pike.....	Charles G. Winn.....	Griggsville.....
Sangamon.....	B. H. Harnley.....	Auburn.....
Warren.....	Thomas S. McClanahan.....	Monmouth.....

The meeting was called to order by Mr. J. C. Ware, of Champaign county, who was made temporary chairman.

Col. Charles F. Mills, of Springfield, was elected Secretary of the meeting.

The call for the meeting sent out by Mr. Curtis was then read as published above.

The importance of completing an organization to be known as the Illinois Farmers' Institute Association was discussed by all present.

A motion by Mr. Harnley, of Sangamon, was adopted, that a committee of three be appointed to prepare a bill to be presented to the next General Assembly, providing for the organization of the Illinois Farmers' Institute Association.

The following gentlemen were nominated and elected as said Committee on Legislation: G. W. Curtis, of JoDavies; J. C. Ware, of Champaign, and Charles F. Mills, of Sangamon.

The following resolutions was adopted:

Resolved, That the Illinois Farmers' Institute Association be composed of a representative of each County Institute in the State.

Resolved, That the Board of Directors of the Illinois Farmers' Institute Association consist of a representative from each congressional district outside of Cook county, said directors to be elected by the delegates appointed by the County Institutes in the respective congressional district for that purpose.

Resolved, That the Presidents of the following agricultural organizations be made *ex-officio* members of the Board of Directors of the Illinois Farmers' Institute Association, viz.:

State Board of Agriculture.

State Horticultural Society.

State Bee-Keepers' Association.

Dean of State Agricultural College.

A motion by Mr. Fangenroth of Madison, was adopted, that an Executive Committee of five be appointed to take charge of the work of completing the organization and promoting the objects of the same.

The following gentlemen were nominated and elected as members of said Executive Committee:

J. C. Ware, Champaign.

G. W. Fangenroth, Madison.

C. G. Winn, Pike.

H. Grundy, Christian.

B. H. Harnley, Sangamon.

A motion by Mr. Winn was adopted, that a committee of three be appointed to prepare an announcement for the County Farmers' Institute meetings of the coming season. Said announcement to contain three pages of matter of general interest to institute workers, and the fourth page to be used for the programs of institute meetings and local business advertisements, to be secured for payment of the same.

The Chair appointed as such committee Charles F. Mills, of Sangamon; Austin Powers, of Lee, and W. L. Candor, of Mercer.

A motion by B. H. Harnley, of Sangamon, was adopted, that the temporary organization be made permanent until the desired legislation is secured, or until the time of holding the Illinois State Fair of 1895.

H. Grundy, of Christian county, was nominated and elected Treasurer.

A motion was adopted that the Secretaries of the several County Institutes be requested to send to Charles F. Mills, of Springfield, Illinois, as issued, one hundred copies of the programs of their respective Institute meetings, to the end that each Institute Association in the State may be supplied by the State Secretary with a copy of the programs of all Institute meetings held in the State.

Adjourned subject to the call of the Executive Committee.

J. C. WARE, *President.*

CHARLES F. MILLS, *Secretary.*

ILLINOIS FARMERS' INSTITUTE.

The Illinois Farmers' Institute, created by act of the Thirty-ninth General Assembly, was duly organized at a meeting called for said purpose and held at the Leland hotel, Springfield, Illinois, Wednesday, August 21, 1895.

The meeting was called to order by Hon. F. M. Palmer, who stated the object of the conference and called attention to the act of the Thirty-ninth General Assembly creating the Illinois Farmers' Institute.

The following members were present at the meeting, viz.: Eugene Davenport, Dean of the Agricultural College of Illinois; J. W. Judy, President Illinois State Board of Agriculture; T. E. Goodrich, President State Horticultural Society; J. M. Thompson, 12th district; F. M. Palmer, 13th district; G. W. Dean, 15th district; Charles F. Mills, 17th district; Daniel Berry, 20th district. Letters regretting unavoidable absence from the meeting from the following members were read, pledging hearty approval of the proceedings, viz.: D. D. Hunt, 8th district; G. W. Curtis, 9th district; U. S. Ellsworth, 11th district; Oliver Wilson, 14th district; W. H. Wall, 16th district; W. E. Robinson, 18th district; A. B. Ogle, 21st district.

The Board proceeded to the election of officers and completed the organization by the election of the following gentlemen to the offices named:

President, F. M. Palmer, of Clinton; Vice-President, G. W. Dean, of Adams; Secretary, Charles F. Mills, of Springfield; Treasurer, Daniel Berry, of Carmi.

Chairmen of committees were then elected as follows:

Agricultural Education—Prof. Eugene Davenport, Dean of the Agricultural College, University of Illinois.

Agricultural Advancement—Hon. J. W. Judy, President Illinois State Board of Agriculture.

Education of Farmers' Children—Hon. S. M. Inglis, State Superintendent of Public Instruction.

Dairy Husbandry—Hon. John Stewart, President State Dairymen's Association.

Horticulture—Hon. T. E. Goodrich, President State Horticultural Society.

Live Stock Breeding—Hon. J. M. Thompson.

Transportation—Col. Charles F. Mills.

Finance—Hon. F. M. Palmer.

The following resolution was adopted:

"WHEREAS, The Illinois Farmers' Institute was duly created by the General Assembly for the purpose of developing the greater interest in the better cultivation of crops, in the care and breeding of the most profitable type of domestic animals, in extending dairy husbandry, promoting horticulture, directing attention to the importance of farm drainage, stimulating the spirit of improvement in the construction of the public roads and discussing the best methods of general farm management in Illinois; and

WHEREAS, The act creating the Illinois Farmers' Institute contemplates that the aforesaid work shall be done largely through the agency of County Farmers' Institutes; and

WHEREAS, Said act provides for the election of a member of the Illinois Farmers' Institute for each Congressional district by the County Institutes in said district, the better to promote the work of this organization in said district; and

WHEREAS, It is deemed important that County Farmers' Institutes be organized in the several counties in the State in which such associations have not been formed at the earliest possible date; therefore, be it

Resolved, By the Illinois Farmers' Institute, that the members representing the several Congressional districts be and are hereby appointed a committee of one to complete the early formation of a Farmers' Institute in each unorganized county in their respective districts.

Resolved, That each member of this Board be requested, upon receipt of a copy of the foregoing resolution, to send the name and address of the Secretary of each active County Farmers' Institute heretofore organized to the Secretary of the Illinois Farmers' Institute, at Springfield, Illinois."

Adjourned to meet on the Illinois State Fair Grounds, Springfield, Wednesday, September 25, 1895, at 2 o'clock p. m.

F. M. PALMER, *President*.

CHARLES F. MILLS, *Secretary*.

ILLINOIS FARMERS' INSTITUTE.

The Illinois Farmers' Institute met in the Administration Building on the State Fair Grounds, on Wednesday, September 25, 1895, as per adjournment.

The meeting was called to order by the President, F. M. Palmer.

The following members answered to call of the roll, viz.: Messrs. Davenport, Hunt, Payne, Ellsworth, Thompson, Palmer, Dean, Wall, Mills, Robinson, Wallace and Ogle.

The reading of the minutes of the meeting held August 21 were dispensed with.

The members present reported a growing interest in Farmers' Institute work in all portions of the State, and that quite a number of County Institutes had recently been organized.

Hon. A. B. Ogle, Secretary of the Conference of County Institute Workers, reported a large attendance at the meeting held preceding this session of the State Institute Board in the same room. That the delegates from all portions of the State expressed an earnest desire to heartily cooperate with the Directors of the State Institute Association in the work of holding Institute meetings during the coming season in each county in Illinois.

The following resolutions, adopted at the conference of the County Farmers' Institute delegates, were read and approved, on motion of Mr. Dean:

"WHEREAS, The Illinois Farmers' Institute has perfected its organization in accordance with the recent act of the General Assembly; and

WHEREAS, Said State Institute can greatly assist County Institutes in the preparation and publication of programs of meetings; therefore, be it

Resolved, That the State Institute be requested to prepare a bulletin containing the outline of the work contemplated in the holding of Institutes during the coming season, and that said bulletin be furnished County Institutes at nominal cost.

Resolved, further, That it is the sense of this conference that it will be to the advantage of County Institutes to use the bulletin prepared by the Illinois Farmers' Institute.

WHEREAS, The Illinois Farmers' Institute can render County Institutes valuable aid in securing the services of speakers of national reputation; and

WHEREAS, Said speakers can be secured at a nominal cost by arranging convenient dates and places for their services; therefore, be it

Resolved, That the Illinois Farmers' Institute be requested to send the officers of County Institutes from time to time the names of speakers, subjects and terms on which said parties can be secured.

Resolved, That the officers of County Institutes confer with the Illinois Farmers' Institute before fixing dates of meetings to the end that convenient circuits may be arranged for County meetings, and thus make it possible to utilize to advantage the best available talent.

The matter of time and place of holding the annual meeting was quite generally discussed, and the following committee was appointed to consider and decide the same, viz.: J. W. Judy, W. E. Robinson and Charles F. Mills.

Motion of Mr. Thompson adopted that the various State Live Stock and other Associations composed of farmers be requested to hold their annual meetings at the same time and place selected for the Illinois Farmers' Institute.

Prof. Davenport presented the following:

Without resorting to the form of a resolution, I suggest that the problem touching the best method of securing the attendance of boys and girls at Farmers' Institutes involves certain natural conditions.

1. The Institute must provide something of interest to the young.
2. Such matter must arise from the nature of the meeting, and not be dragged in to "provide entertainment."
3. The young considered a class like all others must "take part" in the actual Institute work; not be asked to attend as listeners only

4. They must then bring something that is actually needed for the success of the Institute.

5. A portion of this may be other than technical, for the Institute must minister to the general culture of the audience, as well as to the appetite for technical information.

6. Urge fathers and mothers to prepare the young in advance by placing some interest of the farm or the home in the hands of the son or the daughter. Then when successful experience has come, lead them to come to the Institute and tell how it was done. The strongest possible incentive to do this is in the success that has been won, and the labor to win drives out the natural diffidence of youth.

7. A little search will generally reveal in any neighborhood one or more boys or girls who have done some things better than their fellows. The program committee should assiduously hunt these out, and ingeniously arrange plans for their appearance, not always by set papers, of course.

The following resolution, introduced by Mr. Mills, was adopted:

WHEREAS, The interest in County Farmers' Institutes can be greatly increased by holding in connection therewith exhibitions of agricultural products; and

WHEREAS, The collection and display of said exhibits will interest a large number of the young and parties who might not otherwise take part in the Institute; and

WHEREAS, The exhibition of farm products at Institutes will serve a valuable purpose in calling attention to the best varieties of grains, seeds, vegetables, etc., and more generally introduce the same; therefore, be it

Resolved, That the Illinois Farmers' Institute recommend that exhibitions of agricultural products be held in connection with County Farmers' Institutes, and that premiums, ribbons or prizes of nominal value be given for the best exhibits of grains, vegetables, fruits, etc., from each township, and that a county sweepstakes premium be awarded for the best specimens and samples of each article displayed, the sweepstakes competition to be confined to the exhibits receiving the first premiums in the several townships.

Resolved, That the officers of County Institutes be requested to give wide publicity, in the county papers to said exhibits, and that the awards thereon be published by the local press.

Motion adopted, that a committee of three be appointed to prepare a program for the annual meeting and to complete arrangements therefor. The chair appointed as said committee Messrs. Dean, Thompson and Davenport.

Motion of Mr. Dean adopted, that the President and Secretary be added to said committee.

Motion adopted, that the funds of the Illinois Farmers' Institute be deposited as received in a Springfield bank to the credit of the Treasurer, and that itemized bills for authorized expenditures, be paid only upon warrant signed by the President and countersigned by the Secretary.

The following standing committees were approved:

COMMITTEES.

Agricultural Education—Eugene Davenport, Dean of the Agricultural College, University of Illinois; S. M. Inglis, J. W. Judy, G. W. Dean, Charles F. Mills.

Agricultural Advancement—J. W. Judy, President Illinois State Board of Agriculture. D. D. Hunt, U. S. Ellsworth, W. E. Robinson, A. B. Ogle.

Education of Farmers' Children—S. M. Inglis, State Superintendent of Public Instruction; Wm. E. Robinson, D. D. Hunt, Daniel Berry, W. H. Wall.

Dairy Husbandry—John Stewart, President State Dairymen's Association; D. D. Hunt, J. M. Thompson, Oliver Wilson, Charles F. Mills.

Horticulture—T. E. Goodrich, President State Horticultural Society; G. W. Curtis, A. B. Ogle, G. W. Dean, H. P. Burrows.

Live Stock Breeding—J. M. Thompson, William Payne, U. S. Ellsworth, H. P. Burroughs, Charles F. Mills.

Transportation—Charles F. Mills, G. W. Dean, G. W. Curtis, J. M. Thompson, W. H. Wallace.

Finance—F. M. Palmer, W. E. Robinson, Wm. Payne, Daniel Berry, Charles F. Mills.

Adjourned, subject to the call of the chair.

F. M. PALMER, *President*.

CHARLES F. MILLS, *Secretary*.

INSTITUTE CONFERENCE.

The State Conference of Farm Institute workers, held in the Administration Building on the State Fair Grounds, Springfield, September 25, 1895, was largely attended by a very earnest and enthusiastic body of intelligent and progressive agriculturalists that most creditably represented all portions of the State.

The list of delegates appointed to represent the several counties as reported by the Committee on Credentials is appended.

The Conference was called to order at 11:20 A. M.

Hon. J. M. Thompson, of Joliet, was elected temporary Chairman, and A. B. Ogle, of Belleville, temporary Secretary. Said officers were later made the permanent officers of the convention. On motion a Committee on Credentials was appointed, consisting of Hon. A. B. Hostetter, of Mt. Carroll; Hon. James A. Teel, of Rushville, and Hon. George Reed, of Belvidere, who reported the delegates named below as entitled to seats.

Motion adopted that each county represented be entitled to three votes.

Hon. F. M. Parmer, President of the Illinois Farmers' Institute, was called upon and stated that the Conference had been called for the purpose of an exchange of views as to the best methods of advancing the Farmers' Institute work in all the counties in Illinois, and to receive such suggestions from the gentlemen present as would enable the Directors of the Illinois Farmers' Institute to act with the County Institutes in securing the best results from the operation of existing laws.

Col. Charles F. Mills, Secretary of the Illinois Farmers' Institute, was invited to speak, and made a very encouraging report concerning recently organized Institutes, and the earnest efforts being made to complete the formation of a Farmers' Institute Association in each county.

On motion, a committee of five was appointed on resolutions, consisting of Hon. John W. Hunter, Taylorville; Hon. H. M. Dunlap, Savoy; Hon. E. W. Burroughs, Edwardsville; Hon. George Reed, Belvidere, and Hon. A. B. Hostetter, of Mt. Carroll.

The following gentlemen then addressed the convention on the importance of vigorously prosecuting the Farmers' Institute work, viz.: Hon. J. M. Pearson, Godfrey; Hon. A. F. Moore, Woosung; Hon. D. C. Graham, Cameron; Hon. V. G. Way, Gibson City; Hon. J. A. Teel, Rushville; Hon. E. S. Fursman, El Paso; Hon. C. M. Hartsock, Clinton; Senator G. W. Dean, Adams; Hon. Jacob Grossman, Lanark; Hon. T. W. Hunter,

Owaneco; Hon. C. G. Winn, Griggsville; Hon. E. W. Burroughs, Madison; Hon. W. R. Hostetter, Mt. Carroll; Hon. L. L. King, of Huntsville, and others.

Hon. Thomas J. Fleming, Secretary of the Wisconsin State Board of Agriculture made a very interesting address on the great benefits resulting to the farmers of Wisconsin from the holding of Farmers' Institute meetings. He stated that 120 Farmers' Institutes were held in Wisconsin last season.

The Committee on Resolutions presented the following, which were adopted:

WHEREAS, The Illinois Farmers' Institute has perfected its organization in accordance with the recent act of the General Assembly; and,

WHEREAS, Said State Institute can greatly assist County Institutes in the preparation and publication of programs of meetings; therefore, be it

Resolved, That the State Institute be requested to prepare a bulletin containing the outline of the work contemplated in the holding of Institutes during the coming season, and that said bulletin be furnished County Institutes at nominal cost.

Resolved, further, That it is the sense of this Conference that it will be to the advantage of County Institutes to use the bulletin prepared by the Illinois Farmers' Institute.

WHEREAS, The Illinois Farmers' Institute can render County Institutes valuable aid in securing the services of speakers of national reputation; and

WHEREAS, Said speakers can be secured at a nominal cost by arranging convenient dates and places for their services. therefore, be it

Resolved, That the Illinois Farmers' Institute be requested to send the officers of County Institutes from time to time the names of speakers, subjects and terms on which said parties can be secured.

Resolved, That the officers of County Institutes confer with the Illinois Farmers' Institute before fixing dates of meetings to the end that convenient circuits may be arranged for county meetings, and thus make it possible to utilize to advantage the best available talent.

The Convention adjourned to meet on the Illinois State Fair Grounds on Tuesday afternoon of the Fair of 1896.

DELEGATES.

List of delegates to the State Conference of Institute Workers reported by the Committee on Credentials:

COUNTIES.	NAMES.	RESIDENCE.
Bond.....	William E. Robinson	Greenville.....
"	John Hartley	Reno
"	Rufus Cruthers	Sorento
"	J. H. Denny	"
Boone.....	George Reed	Belvidere.....
Bureau	Hon.	Sutherland
Carroll	Hon. W. R. Hostetter	Mt. Carroll.
"	Jacob Grossman	Janark.
"	J. V. Cotto	Nursery
Champaign	Senator H. M. Dunlap	Savoy
"	C. Dyer	Mahomet
"	Z. R. Grenung	Rantoul
Christian	Harry Grundy	Morrisville
"	Thornton W. Hunter	Owaneco
"	Sylvester Schrantz	Stonington
Effingham	T. B. Rinehart	Effingham
"	Wm. Dyke	"
"	Edwin Austin	"
DeWitt.....	Samuel Newell	Ogspur
"	C. Y. Miller	"
"	C. M. Hartsock	Clinton

List of Delegates—Concluded.

COUNTIES.	NAMES.	RESIDENCE.
Ford	Hon. Charles Bogardus.	Paxton
"	John A. Scott.	Kempton
"	W. A. Bicket.	Sibley
"	J. H. Beasley.	"
"	J. B. Foley.	Gibson City
"	V. G. Way.	"
Hamilton	John C. Hall.	"
"	M. A. Hooker.	"
Iroquois	George C. Smith.	Melford
"	F. J. Mann.	Watsaka
"	D. Brumback.	Danforth
Kankakee	L. Small.	Kankakee
Livingston	John Virgin.	Fairbury
Madison	John M. Pearson.	Godfrey
"	E. W. Burroughs.	Edwardsville
Mason	Walter L. Coon.	Topeka
"	D. C. White.	Forest City
"	J. T. Mowder.	Havana
McDonough	Frank Herzog.	Blaindsville
"	B. F. Irish.	Colchester
"	H. E. Billings.	Macomb
Montrie	G. W. Vaughn.	Sullivan
"	T. H. Crowder.	Bethany
Ogle	E. F. Moore.	Woodsung
"	Chas. Walkup.	Oregon
Pike	J. A. Countryman.	Lindenwood
"	C. G. Winn.	Griggsville
Rock Island	Thomas Campbell.	Rock Island
"	T. W. Payne.	Osborn
"	W. S. McCulloch.	Tailor Ridge
"	William Crawford.	Edington
"	Louis O. Johns.	South Moline
Sangamon	John Upton.	Springfield
"	C. F. Mills.	"
"	T. W. Wilson.	"
Schnyler	J. A. Teel.	Rushville
"	J. E. Thompson.	"
"	L. L. King.	Huntsville
"	G. H. Mason.	Rushville
"	G. H. Lambert.	"
"	J. W. Whitson.	"
Scott	E. Miner.	Winchester
"	N. Smithson.	"
St. Clair	G. E. Tate.	Smithton
"	Fred Eids.	Belleville
"	A. B. Ogle.	"
Stephenson	Hon. Homer Aspinwall.	Freeport
Vermilion	Hon. S. Sandusky.	"
Warren	J. E. Miller.	Monmouth
"	D. C. Graham.	Cameron
"	Thomas McClanshan.	Monmouth
Whiteside	E. R. Murphy.	Garden Plain
"	Charles W. Mitchell.	Round Grove
"	H. L. Ewing.	Morrison
Will	J. M. Thomson.	Joliet
Woodford	Hon. E. S. Fureman.	El Paso

ST. NICHOLAS HOTEL,

SPRINGFIELD, 7:30 O'CLOCK P. M., MONDAY, JANUARY 6, 1896.

The directors were convened in special session on the call of the President.

The meeting was called to order by President Palmer.

The following members responded to the call of the roll: Messrs. Dean, Hunt, Inglis, Mills, Ogle, Palmer, Robinson, Thomson and Wall.

The President stated that the meeting had been called for the purpose of completing arrangements for the three days' meeting of the Illinois Farmers' Institute and to transact any other business presented.

Mr. Inglis presented the following resolutions adopted December 27, 1895, by the County Superintendents' section of the Illinois Teachers' Association, and moved that the resolutions be spread upon the records, which motion carried.

WHEREAS, The late General Assembly, appreciating the great benefits resulting from the holding of Farmers' Institute meetings, passed a law creating the Illinois Farmers' Institutes, for the purpose of developing a greater interest through said organization in the better cultivation of crops, in the care and breeding of the most profitable type of domestic animals, in extending dairy husbandry, promoting horticulture, directing attention to the importance of farm drainage, stimulating the spirit of improvement in the construction of the public roads, and discussing the best methods of general farm management and the development of a better grade of scholarship among the children of the farmers of the State; and,

WHEREAS, The farmers in the great majority of the counties in Illinois are enjoying the many advantages resulting from the holding of one or more Institutes each year; and

WHEREAS, There is every reason why the farmers of every county should share the benefits resulting therefrom, and receive annually the \$50 appropriated by the General Assembly to cover the expenses of such meetings; and,

WHEREAS, Said Farmers' Institutes can be made effective agencies in aiding County Superintendents of Schools in developing a greater interest in educational matters among farmers and directors of district schools; therefore, be it

Resolved, That the County Superintendents' section of the State Teachers' Association of Illinois do recommend that every County Superintendent of Schools in the State take an active part in the organization and promotion of the work of County Farmers' Institutes.

Resolved, That it is the sense of County Superintendents' Section of the Illinois Teachers' Association that more prominence should be given in County Farmers' Institute meetings to household economy, social and other work in which the wives and daughters of farmers are especially interested.

Resolved, That the officers of County Farmers' Institutes be urged to organize a Ladies' Auxiliary to the Farmers' Institute.

Resolved, That the advanced culture and education of the wives and daughters of the farmers of Illinois is such as to give assurance that only the organization as proposed above is necessary to insure in every county an effective agency for the more rapid development of all that pertains to the best conditions of the farm in household economy, social and wider range of educational advantages incident to the better civilization.

Resolved, That the officers of County Farmers' Institutes be requested to set apart one-half a day of each annual session to the discussion of educational matters of special interest to our rural population, and that the teachers of district schools and pupils thereof be given a prominent place upon the program of said session.

Resolved, That a copy of the foregoing recommendation be sent to the Secretary of the Illinois Farmers' Institute.

Mr. Inglis presented the following resolutions, adopted by the Illinois State Teachers' Association December 25, 1895, and moved the resolutions be spread upon the record, which motion carried:

Resolved, That this Illinois State Teachers' Association most heartily indorses the action of the Illinois Farmers' Institute, in setting aside one day of their County and State meetings as Educational Day, during which to consider the direct interests of the rural schools.

The following resolutions, adopted by the Illinois State Grange December 11, 1895, were read and ordered spread upon the record:

WHEREAS, The late General Assembly, appreciating the great benefits resulting from the holding of Farmers' Institute meetings, passed a law creating the Illinois Farmers' Institutes, for the purpose of developing a greater interest, through said organization, in the better cultivation of

crops; in the care and breeding of the most profitable type of domestic animals; in extending dairy husbandry; promoting horticulture; directing attention to the importance of farm drainage; stimulating the spirit of improvement in the construction of the public roads, and discussing the best methods of general farm management; and

WHEREAS, The farmers in the great majority of the counties in Illinois are enjoying the many advantages resulting from the holding of one or more Institutes each year; and

WHEREAS, There is every reason why the farmers of every county should share in the benefits resulting therefrom and receive annually the \$50 appropriated by the General Assembly to cover the expenses of such meetings: therefore, be it

Resolved, That the Illinois State Grange recommend that every subordinate and Pomona Grange in the State take an active part in the organization and promotion of the work of County Farmers' Institutes.

Resolved, That it is the sense of this State Grange that more prominence should be given in County Institute meetings to household economy, social and other work in which the wives and daughters of farmers are especially interested.

Resolved, That the officers of the County Farmers' Institutes be urged to organize a Ladies' Auxiliary to the Farmers' Institute.

Resolved, That the advanced culture and education of the wives and daughters of the farmers of Illinois is such as to give assurance that only organization as proposed above is necessary to insure in every county an effective agency for the more rapid development of all that pertains to the best conditions on the farm in household economy, social and wider range of educational advantages incident to the better civilization.

Resolved, That a copy of the foregoing recommendations be sent to the Secretary of the Illinois Farmers' Institute.

The following resolution, introduced by Mr. Robinson, was adopted:

Resolved, That the Directors of the Illinois Farmers' Institute fully appreciate the wisdom of the suggestions, the kind expressions and assurances of coöperation of the convention of County School Superintendents, the Illinois Teachers' Association and the State Grange, as expressed in the resolutions presented to this meeting by said organizations, and that the aid of said associations is requested in the promotion of the work contemplated by the General Assembly in the act creating the Illinois Farmers' Institute.

The following resolutions, introduced by Mr. Ogle, were adopted:

WHEREAS, The convention of County School Superintendents of the Illinois Teachers' Association and the Illinois State Grange, with a desire to promote the effectiveness of the Farmers' Institute work in Illinois, have recommended that more time be devoted to household economy, social and other work in the meetings of County Farmers' Institutes than is now allotted to said departments of study; and

WHEREAS, To effectively accomplish the results so much desired, the aid of the wives, mothers and daughters of the farm must be secured; therefore, be it

Resolved, That the Board of Directors of the Illinois Farmers' Institute hereby creates the State Ladies' Institute, as a ladies' auxiliary of the Illinois Farmers' Institute, and to be composed of one lady from each Congressional Institute—said Ladies' Institute to devote its attention to matters pertaining to the home and household duties on the farm.

Resolved, That said State Ladies' Institute be empowered and requested to perfect a similar organization to the Illinois Farmers' Institute, so far as relates to officers, with such committees as may be necessary to best promote its work and coöperate to the best advantage with the Illinois Farmers' Institute in the effort to improve the condition of the farm home—beautify its surroundings, elevate the standard of manhood

and womanhood of the families of the Illinois farmer, and secure the adoption all available means likely to broaden and develop the higher qualities of mind and heart of our rural population.

Motion adopted that committees be appointed as follows to attend the live stock meetings to-morrow forenoon and assist in making the sessions profitable, viz.:

State Horse Breeders' Association—Messrs. Hunt, Thompson, Robinson, Wall and Mills.

State Sheep Breeders' Association—Messrs. Ogle, Inglis, Palmer and Dean.

Motion adopted that discussion follow the reading of papers presented at the various sessions of the State Institute, and that parties be allowed to speak but once on each topic, and to continue their remarks not to exceed three minutes.

The following resolution, introduced by Mr. Mills, was adopted:

Resolved, That the thanks of the Illinois Farmers' Institute are due and hereby extended to the railroad officials and others who have aided in the preparatory work of the annual meetings of this organization.

The Board adjourned subject to the call of the President.

CHARLES F. MILLS,
Secretary.

F. M. PALMER,
President.

STATE HOUSE,
OFFICE ILLINOIS FARMERS' INSTITUTE.
TUESDAY, 5 O'CLOCK P. M., JANUARY 7, 1896.

The Board of Directors met in special session on the call of the President.

Called to order by President Palmer.

Present: Messrs. Dean, Hunt, Mills, Ogle, Palmer, Robinson, Thompson and Wall.

Motion of Mr. Wall adopted.

That 10 o'clock A. M. to-morrow be appointed for the meeting of the State Ladies' Institute, in the room of the Lieutenant-Governor.

The annual report of the Treasurer was presented as follows:

TREASURER'S REPORT.

SPRINGFIELD, January 7, 1896.

Illinois Farmers' Institute, in account with Daniel Berry, Treasurer:

<i>Dr.</i>		
To advertising in program.....		\$245 00
<i>Cr.</i>		
By clerk hire.....	\$50 00	
By commission, advertising agents.....	41 00	
By printing 10,000 programs.....	126 00	
By postage.....	25 00	
By balance in treasury.....	8 00	
		\$245 00

I hereby certify that to the best of my knowledge and belief the above is a true and correct exhibit of the receipts and disbursements of the Illinois Farmers' Institute for the year ending January 4, 1896.

DANIEL BERRY,

Treasurer.

Motion of Mr. Hunt adopted, that the report of the Treasurer be referred to a committee for audit.

The chair appointed Messrs. Hunt, Dean and Robinson a committee to audit the report of the Treasurer.

The following report of the Auditing Committee was received and adopted:

REPORT OF AUDITING COMMITTEE.

To the Illinois Farmers' Institute:

The undersigned have carefully examined the annual report of the Treasurer for the year ending January 4, 1896, in connection with the approved vouchers on file in the office of the Board, which have been compared with the warrants signed by the President and Secretary for expenditures.

The vouchers in amount agree with the report of the Treasurer, which we find correct, and recommend for the approval of the Board.

Respectfully submitted,

D. D. HUNT,
G. W. DEAN,
W. E. ROBINSON,

Auditing Committee.

Adjourned, subject to the call of the Chair.

F. M. PALMER,

President.

CHARLES F. MILLS,

Secretary.

STATE HOUSE.

OFFICE ILLINOIS FARMER'S INSTITUTE.

THURSDAY, 9 O'CLOCK A. M., JANUARY 9, 1896.

The Directors met in special session on call of the Chair.

President Palmer called the meeting to order.

Present—Old Board: Dean, Mills, Palmer, Robinson, Thompson and Wilson.

New Board: J. H. Cooledge, Galesburg; G. W. Dean, Adams; Charles F. Mills, Springfield; Amos F. Moore, Polo; F. M. Palmer, Clinton; W. E. Robinson, Greenville; J. M. Thompson, Joliet; Oliver Wilson, Magnolia.

The President stated that the meeting had been called to canvass the certificates of the directors elected at the conventions of delegates representing the County Farmers' Institutes in the respective districts and held in the Senate Chamber, State House, Springfield, January 8, 1896.

The reports of the respective Congressional delegations were then duly examined and the following directors were declared duly elected as provided in the act creating the Illinois Farmers' Institute, viz.:

DISTRICT.	NAMES.	CITIES.
8th District.....	B. F. WYMAN.....	Sycamore.....
9th District.....	Amos F. Moore.....	Polo.....
10th District.....	J. H. Cooledge.....	Galesburg.....
11th District.....	G. A. Willmarth.....	Seneca.....
12th District.....	J. M. Thompson.....	Joliet.....
13th District.....	F. M. Palmer.....	Clinton.....
14th District.....	Oliver Wilson.....	Magnolia.....
15th District.....	G. W. Dean.....	Adams.....
16th District.....	C. G. Winn.....	Griggsville.....
17th District.....	Charles F. Mills.....	Springfield.....
18th District.....	W. E. Robinson.....	Greenville.....
19th District.....	W. H. Wallace.....	Humboldt.....
20th District.....	L. N. Beal.....	Mt. Vernon.....
21st District.....	A. B. Ogle.....	Belleville.....
22d District.....		

On motion, the preliminary organization of the Illinois Farmers' Institute adjourned sine die.

F. M. PALMER, *President.*

CHARLES F. MILLS, *Secretary.*

STATE HOUSE.
OFFICE ILLINOIS FARMERS' INSTITUTE.
THURSDAY, 10 O'CLOCK A. M., JANUARY 9, 1896.

The members elect of the Illinois Farmers' Institute were called to order by Charles F. Mills, who read the proceedings of the final meeting of the retiring Board of Directors, certifying to the election of the members of the new board.

On motion, Mr. F. M. Palmer was made Temporary Chairman, and Charles F. Mills Temporary Secretary.

The following members elect responded to call of the roll, viz:

DISTRICTS.	NAMES.	CITIES.
9th District.....	Amos F. Moore.....	Polo.....
10th District.....	J. H. Cooledge.....	Galesburg.....
12th District.....	J. M. Thompson.....	Joliet.....
13th District.....	F. M. Palmer.....	Clinton.....
14th District.....	Oliver Wilson.....	Magnolia.....
15th District.....	G. W. Dean.....	Adams.....
17th District.....	Charles F. Mills.....	Springfield.....
18th District.....	W. E. Robinson.....	Greenville.....

The election reports of the respective Congressional delegation were then duly examined, and the following Directors were declared duly elected members of the Illinois Farmers' Institute as provided in the act creating the same:

DISTRICTS.	NAMES.	CITIES.
8th District.....	B. F. Wyman.....	Sycamore.....
9th District.....	Amos F. Moore.....	Polo.....
10th District.....	J. H. Cooledge.....	Galesburg.....
11th District.....	G. A. Wilmarth.....	Seneca.....
12th District.....	J. M. Thompson.....	Joliet.....
13th District.....	F. M. Palmer.....	Clinton.....
14th District.....	Oliver Wilson.....	Magnolia.....
15th District.....	G. W. Dean.....	Adams.....
16th District.....	C. G. Winn.....	Griggsville.....
17th District.....	Charles F. Mills.....	Springfield.....
18th District.....	W. E. Robinson.....	Greenville.....
19th District.....	W. H. Wallace.....	Humboldt.....
20th District.....	L. N. Beal.....	Mt. Vernon.....
21st District.....	A. B. Ogle.....	Belleville.....
22d District.....		

Motion of Mr. Robinson adopted, that the papers presented by Mr. J. H. Stahl, of Chicago as the representative of the Cook County Farmers' Institute be considered.

The Board invited Mr. Stahl to address the Board and at the close of his remarks the motion of Mr. Robinson was adopted. That the further consideration of the papers relating to the Cook County Farmers' Institute be postponed pending the filing of the proper certificate of the organization of the Cook County Institute with the Secretary of the Illinois Farmers' Institute.

OFFICERS ILLINOIS FARMERS' INSTITUTE 1896.



President F. M. Palmer, Clinton, Ill.



Secretary Charles F. Mills, Springfield, Ill.



Vice-President W. E. Robinson, Greenville, Ill.



Treasurer T. W. Wilson, Springfield, Ill.

Motion adopted that the Board proceed to the election of officers for the year 1896, which resulted as follows:

President.....	F. M. Palmer.....	Clinton.....
Vice-President.....	W. E. Robinson.....	Greenville.....
Secretary.....	Charles F. Mills.....	Springfield.....
Treasurer.....	T. W. Wilson.....	Springfield.....

The following Committees were subsequently appointed for 1896:

Agricultural Education, Eugene Davenport, Dean of the Agricultural College, University of Illinois, S. M. Inglis, J. W. Judy, G. W. Dean, Geo. H. Gurler.

Agricultural Advancement, J. W. Judy, President Illinois State Board of Agriculture, G. W. Dean, Amos F. Moore, C. G. Winn, Oliver Wilson.

Education of Farmers' Children, S. M. Inglis, State Superintendent of Public Instruction, Wm. E. Robinson, G. A. Wilmarth, Charles F. Mills, A. B. Ogle.

Dairy Husbandry, Geo. H. Gurler, President State Dairymen's Association, Eugene Davenport, J. M. Thompson, B. F. Wyman, J. H. Cooledge.

Horticulture, T. E. Goodrich, President State Horticultural Society, Eugene Davenport, Amos F. Moore, C. G. Winn, L. N. Beal.

Live Stock Breeding, J. M. Thompson, W. H. Wallace, G. W. Dean, A. B. Ogle, Charles F. Mills.

Transportation, Charles F. Mills, L. N. Beal, Amos F. Moore, B. F. Wyman, W. H. Wallace.

Finance, F. M. Palmer, W. E. Robinson, J. M. Thompson, Amos F. Moore, Charles F. Mills.

The following resolution, introduced by Mr. Thompson, was adopted:

Resolved, That in the editing of the papers, discussions, resolutions, etc., for publication in the annual report, the Secretary eliminate advertisements, partisan politics or matter likely to cause undue offense.

The following resolution, introduced by Mr. Wilson, was adopted:

Resolved, That the free mail delivery should be extended throughout the farming regions as rapidly as possible without onerous increase in the expenses of the post office department.

Resolved, That rural free mail delivery, as outlined above, should precede any reduction in the present rate of letter postage.

Motion of Mr. Mills adopted, that a committee of five be appointed to prepare by-laws, etc., for the guidance of the Illinois Farmers' Institute and County Institutes.

The President appointed as said committee Messrs. Mills, Dean, Thompson, Robinson and Wilson.

Motion of Mr. Cooledge adopted, that all matters of finance relating to receipts and disbursements for the ensuing year be referred to the Finance Committee, with power to act.

On motion the Board adjourned, subject to the call of the President.

F. M. PALMER, *President*.

CHARLES F. MILLS, *Secretary*.

STATE CONVENTION.

ILLINOIS FARMERS' INSTITUTE.

DELEGATES COUNTY FARMERS' INSTITUTES.

Credentials were filed as follows for delegates appointed by the County Farmers' Institutes to attend the convention called for the election of Directors of the Illinois Farmers' Institute, and to be held in the Senate Chamber, State House, Springfield Illinois, Wednesday, January 8, 1896, at 9 o'clock A. M.:

FIRST CONGRESSIONAL DISTRICT.

County.	Delegates.	Post Office.
Cook	E. E. Cretchfield	Chicago.....
"	Albert S. Core.....	"
"	Charles S. Horn.....	"

EIGHTH CONGRESSIONAL DISTRICT.

DeKalb	G. H. Gurler.....	DeKalb.....
"	D. D. Hunt.....	"
"	Edwin Wait.....	Sycamore.....
Grundy	Mr. Stine.....	Mazon.....
"	J. N. Woods.....	Gardner.....
Kan.....	John Stewart.....	Elbern.....
Kendall	W. D. Stryker.....	Plainfield.....
McHenry	M. Zimpfsmann.....	Marengo.....

NINTH CONGRESSIONAL DISTRICT.

Lee	A. G. Judd.....	Dixon
"	L. W. Mitchell.....	"
"	George W. Smith.....	"
Ogle	J. A. Countryman.....	Linnwood.....
"	Charles S. King.....	Kings.....
"	James P. Wilson.....	Woodsung.....
Winnebago	A. J. Lovejoy.....	Roscoe.....

TENTH CONGRESSIONAL DISTRICT.

Knox	O. L. Campbell.....	Knokville.....
"	J. H. Cooledge.....	Galesburg.....
"	E. H. Goldsmith.....	"
Rock Island.....	Thomas Campbell.....	Rock Island.....
"	P. F. Cox.....	Port Byron.....
"	Wm. T. Crawford.....	Taylor Ridge.....
Whiteside.....	H. L. Ewing.....	Lyndon.....
"	Charles W. Mitchell.....	Mt. Pleasant.....
"	R. R. Murphy.....	Garden Plain.....

Delegates—Continued.

ELEVENTH CONGRESSIONAL DISTRICT.

County.	Delegates.	Post Office.
LaSalle	Mrs. L. G. Chapman	Freedom
"	U. S. Ellsworth	Deer Park
"	H. F. Olmstead	Freedom

TWELFTH CONGRESSIONAL DISTRICT.

Iroquois	D. Brumback	Danforth
"	F. M. Chapman	"
"	Frank P. Mann	"
Kankakee	O. W. Barnard	Manteno
"	Len Small	Kankakee
Will	John C. Baker	Manhattan
"	A. Allen	New Lenox
"	John M. Thompson	Joliet

THIRTEENTH CONGRESSIONAL DISTRICT.

Champaign	Nathan Arnold	St. Joseph
"	J. R. Dilling	"
"	S. S. Cove	Philo
DeWitt	Harry Cline	Clinton
"	Chas. Hartcock	"
"	H. D. Watson	"
Douglas	George Kalloway	Tuscola
"	Carroll C. Jones	"
"	Eugene Rice	Camargo
Ford	F. W. Beardsley	Gibson City
"	Fred W. Johnson	Paxton
"	George Stockdale	Sibley
McLean	Oscar Bonnett	"
"	Deane F. Frank	Bloomington
"	L. E. Skeggs	"
Platt	W. H. Kratz	Monticello
"	C. W. Platt	"

FOURTEENTH CONGRESSIONAL DISTRICT.

Marshall	George W. E. Cook	Lacon
"	S. M. Forbes	Henry
"	Alfred Judd	Wenona
Mason	J. C. Cleaveland	Easton
"	Walter Coon	Topeka
"	George J. Hopkins	Havana
Putnam	A. W. Hopkins	Granville
"	Oliver Wilson	Magnolia
"	J. O. Winship	Putnam
Tazewell	J. G. Houghton	Delavan
"	Ralph Allen	"
"	C. E. Schureman	"

Delegates—Continued.

FIFTEENTH CONGRESSIONAL DISTRICT.

County.	Delegates.	Post Office.
Adams	S. N. Black	Clayton
"	Joseph Nevins	Camp Point
"	J. C. Pearce	"
Hancock	A. D. Barber	Hamilton
"	C. N. Dennis	"
"	C. M. McMillan	Denver
Schuyler	R. B. Dixon	Baden
"	George Lambert	Littleton
"	Walter Whitson	Rushville

SIXTEENTH CONGRESSIONAL DISTRICT.

Green	Peter A. Brown	Carrollton
"	Charles I. McCollister	White Hall
"	George W. Will	Kane
Jersey	V. Dodge	Fidelity
"	J. R. Fulkerson	Jerseyville
"	Jos. N. Linton	Delhi
Scott	A. P. Grout	Winchester
"	George C. Peak	"
"	N. B. Smithson	"

SEVENTEENTH CONGRESSIONAL DISTRICT.

Christian	Harry Grundy	Morrisonville
"	George E. Maxon	"
"	G. W. Tarrant	Taylorville
Logan	W. S. Evans	Lincoln
"	William Fogerty, Jr.	"
"	George Wendle	New Holland
Macon	R. M. Bell	Decatur
Menard	A. N. Curry	Petersburg
"	C. C. Judy	Tallula
"	Robert Thompson	Atterberry
Sangamon	L. H. Coleman	Springfield
"	J. A. Stone	Bradfordville
"	T. W. Wilson	Springfield

EIGHTEENTH CONGRESSIONAL DISTRICT.

Bond	E. P. Gracey	Sorento
"	John Hartley	Reno
"	W. E. Robinson	Greenville
Madison	C. W. Tangemoth	Edwardsville
"	John M. Pierson	Godfrey

NINETEENTH CONGRESSIONAL DISTRICT.

Coles	C. R. Doty	"
"	John B. Hill	"
"	W. A. Walker	"
Efingham	Wm. Abrahams	Watson
"	Edward Austin	Efingham
"	John Beard	Dieterich

Delegates—Concluded.

TWENTIETH CONGRESSIONAL DISTRICT.

County.	Delegates.	Post Office.
Hamilton	John C. Hall.....	McLeansboro.....
"	L. J. Hale.....	"
"	John Judd.....	"
Jefferson.....	S. H. Anderson.....	Mt. Vernon.....
"	John C. Garrison.....	"
"	C. Garrison.....	"
Wayne.....	D. K. Davis.....	Fairfield.....
"	E. A. Rankie.....	"
"	N. Sidwell.....	"

TWENTY-FIRST CONGRESSIONAL DISTRICT.

St. Clair.....	Fred Helme.....	Belleville.....
"	A. B. Ogle.....	"
"	W. H. Wilderman.....	Freeburg.....

TWENTY-SECOND CONGRESSIONAL DISTRICT.

No Delegates.

PROCEEDINGS OF THE CONVENTION OF DELEGATES REPRESENTING COUNTY FARMERS' INSTITUTES.

SENATE CHAMBER,
SPRINGFIELD, ILLINOIS.
9 O'CLOCK A. M. WEDNESDAY, JANUARY 8, 1895. }

The convention of delegates was called to order by President F. M. Palmer.

The Chair called attention to the provisions of the act creating the Illinois Farmers' Institute providing for the election of directors representing the several congressional districts.

The President: The Secretary will read the notice sent to the officers of each county Institute in reference to the calling of this convention of delegates.

The Secretary: The following is copy of letter sent to the officers of each County Farmers' Institute, the organization of which was on file in the office.

SPRINGFIELD, DECEMBER 9, 1895.

President County Farmers' Institute:

Enclosed you will find blank on which to report the names of the delegates and alternates appointed to represent your County Institute in the convention called for election of members of the Illinois Farmers' Institute.

The convention of delegates called for the election of directors of the Illinois Farmers' Institute will be held in the Senate Chamber, State House, Springfield, Wednesday, January 8, 1896, at 9 o'clock A. M.

The delegates from the several congressional districts will be given ample opportunity for conference before all the delegates are convened as a state convention.

You are requested to appoint three ladies to represent your county in conference to be held during the annual session of the Illinois' Farmers' Institute for the purpose of considering the advisability of organizing a Ladies' Auxiliary to the State Institute, said auxiliary to be composed of the wives and daughters of farmers who reside in the county.

Kindly forward at your earliest convenience the names of delegates, alternates and ladies as indicated on the enclosed blank.

Yours truly,

CHARLES F. MILLS.

The President: The delegates representing the several congressional districts will be given time to meet together in various sections of the Senate Chamber for the purpose of conference and the election of a director to represent their respective districts.

On motion a recess was taken of thirty minutes to enable the delegates to assemble by congressional districts.

The President: The time for re-assembling has arrived and the convention will please come to order.

The Secretary will call the roll of districts and the chairman of the district delegation will report the name of the director elected to represent the same.

The Secretary: The Eighth District.

D. D. Hunt, of DeKalb county: Mr. President, I have been credibly informed that Cook county is here with credentials asking to be represented in this convention, and it really seems to me this matter should be considered first, the districts involved being all prior to the Eighth. The question is whether Cook county ought not to be represented here. I know a good many good farmers in that county. It would, of course, be entitled to three delegates here at least, and although farming may be a subordinate interest in that county, still I believe it is the duty of this convention to receive that county, or at least give it an opportunity to be heard. The representative is here with credentials and he probably would like to be heard before we proceed further with our election. I therefore move that he now be heard.

The motion was stated and no objection was heard.

John M. Stahl: Mr. President, I am here in a very embarrassing situation, because I came to represent Cook county in good faith, not supposing there would be any question about the admission of representation from that county. If I had supposed there would be any question, I would have been better fortified with facts; there would have been a better representation from that county, and it would not have been necessary for me to appear at all.

When the bill for the State Farmers' Institute was drawn up it was taken for granted that Cook county had no farmers, and therefore no representation from that county was in contemplation. It has been since revealed, however, that there are actually more farmers in Cook county than in any one of eighteen counties that could be named in this State, and that its farm products exceed in value those of some twenty-four counties in the State. In Cook county we have one of the liveliest Granges in the State, and for some time past there has been talk of organizing there a Farmers' Institute. In November, the exact date I cannot recall, a few of us talked the matter over and called a meeting for the nineteenth of December, when there was elected a President, whose name is E. G. Crutchfield, Secretary of the State Dairymen's Association, and a practical farmer. Having organized, a report was made with a list of officers to the Secretary of the State Board of Agriculture, Mr. Garrard. That report was signed by Mr. Crutchfield. We did not know until lately that the report should have been sent to Mr. Charles F. Mills. At our meeting on the nineteenth of December there were also selected three delegates to this meeting, as we undoubtedly had a right to do, and the report of that action was also sent to Mr. Garrard

instead of Mr. Mills. We did that, of course, with the understanding that those three delegates would be entitled to elect their own director in the State Farmers' Institute. I was then chosen by those three as the director, and not to have the matter appear unauthorized it was referred to the entire county institute and there unanimously endorsed, and my election was also certified to Mr. Garrard. Now, of course, under the law, each district is entitled to one director in this State Farmers' Institute. But, although there are seven districts in Cook county, she does not expect to have seven directors; she does not ask for seven, but ask for one, and that, I think, she is entitled to.

There are a large number of people in Cook county actually engaged in agricultural pursuits and with strong agricultural instincts, especially in view of their position, and we think we ought to have all the encouragement from this Institute you can consistently give.

It was at first considered that it would be the best to elect one honorary member, and the county institute thereupon requested that I should be that member with a privilege of speaking but not holding office. I do not want any office, but we do want an opportunity to present our claims, and I presume such a concession would be entirely satisfactory to Cook county. Everybody has a right to be elected an honorary member, and the Cook County Institute has elected me, and they have also elected me to represent their districts.

For this chance to address you, gentlemen, I thank you on behalf of the Cook County Institute.

The President: I think perhaps our best way is to proceed to hear the reports from the districts, and then if there is any disposition to take up this matter it can be done.

The Secretary: The Eighth District.

Mr. Hunt: I have had the credentials here for the representatives of my district.

The name handed in as that of the director for the Eight District was E. F. Wyman, of Sycamore.

The Secretary then completed the call of the districts, the names of the directors respectively chosen being announced as follows:

Ninth District, Amos F. Moore, of Polo.

Tenth District, J. A. H. Coolridge, of Galesburg.

Eleventh District, G. A. Wilmarth, of Seneca.

Twelfth District, J. M. Thompson, of Joliet.

Thirteenth District, F. M. Palmer, of Clinton.

Fourteenth District, Oliver Wilson, of Magnolia.

Fifteenth District, G. W. Dean, of Adams.

Sixteenth District, C. G. Wynn, of Griggsville.

Seventeenth District, Charles F. Mills, of Springfield.

Eighteenth District, W. E. Robinson, of Greenville.

Nineteenth District, W. H. Wallace, of Humboldt.

Twentieth District, L. N. Beale, of Mount Vernon.

Twenty-first District, A. B. Ogle, of Belleville.

The Twenty-second District not being represented, its Director was left to be chosen by the Board.

The President: Now with reference to Cook county, if there is no further expression about the matter, it will be referred to the new Board of Directors for decision, but if anybody has anything more to say about it, we will now hear it.

Mr. Chandler: This organization then does not include Cook county?

The President: Cook County is entitled to three delegates if admitted.

Mr. Chandler: Then I can see no objection, Mr. President, to a motion that Cook county be received on equal terms with other counties.

Mr. Garrison: Mr. President, I would like to inquire the number of acres employed in farming in Cook county.

Mr. Crawford: Is it not true that the farming part of Cook county is divided into several Congressional Districts?

Mr. Stewart, of Kane County: It is nearly all in one district. I think, however, some of it is in two, perhaps.

Mr. Hunt, of Dekalb: Mr. President, I want to say, by way of referring this matter to the law, that Mr. Pearson is getting the law, and that will settle the question absolutely. In my opinion Cook county is just as much entitled to representation here as any other. But Mr. Pearson has got the law and will read it, so you will all understand it as well as I do, and better.

J. M. Pearson, of Godfrey: Mr. President, the law under which we are working provides that each county shall have three delegates to the mass meeting. I understand this mass meeting to be this State Farmers' Institute. And the whole business of that mass meeting is managed by a Board of Directors. They take care of it; spend the money; do as they please. The statute provides who shall be members of that Board of Directors, and it names the State Superintendent and different Boards mentioned and then one member from each Congressional District of the State. Now no Congressional District in the State can be cut off from membership in this Board of Directors. All agree in the intention of the law, which is so very plain I need not read it. There is but one County Institute in a county. I think perhaps the men that framed the law overlooked the peculiar condition here, and we have to turn sharp corners or get hurt. But Cook county has seven Congressional Districts, and under this act they are entitled to seven members of the Board of Directors, if they have a mind to elect them. If they do not elect them, but if they come here with a member authorized, I cannot hesitate a moment to give them their representative. Mind you, gentlemen, I have hesitated very much about being stuck together with a third part of this State. Seven Congressional Districts means a good many Senators to meet right here in this room, and three times as many members of the house over yonder. But I want to say for the credit of Cook county, that I never stood on the floor at the other end of this building, in favor of any farming legislation that Cook county was not ready to help. (Applause.) I do hope we shall not make the blunder of trying to shut her out, when we want her in. (Applause.)

Mr. Maxon, of Christian County: Mr. President, we may as well state the whole case with reference to Chicago; state the facts with reference to the Congressional Districts, and all the facts. There only seems to be one thing in the way, that is the error made in the way they got about the matter of representing their institute here at Springfield. That error should be corrected, and that is all there is of it. The only thing is to correct that error. When that is done, everything is right.

Mr. Dean, of Adams County: Mr. President, I am very favorable to having the spirit of the law carried out to the fullest extent. I hope Cook county will receive all the rights to which she is entitled, as it is a grand county up there. And I move you that this matter be referred to the Attorney-General, so that we can act understandingly.

Mr. Judd, of Dixon: Mr. President, I move as a substitute to the first motion, that delegates be received from Cook county according to law.

Mr. Barnard: And elect them in seven Congressional Districts?

Mr. Judd: If they are entitled to it they may. It will be as the law specifies.

The President: This Board of Directors has no disposition to do anything but according to law.

J. M. Thompson, of Joliet: Mr. President, it seems to me this is an important matter now coming before this Institute for decision, and it is one that may work an injury in the future, unless it is carefully handled.

We know the position of Chicago in the State. When it comes to asking for federal officers and appointments of almost every kind, Chicago then claims to be a third of the State. But when we go to looking into their assessments, we find by the Labor Bureau's report in this State that the per capita wealth of the individual inhabitant of Cook County is only three cents and seven mills. So, while it seems to me it is ordinarily proper and fair that the agricultural portion of Cook county should be admitted here, yet when you come to take into consideration the districts in the heart of the city that would have no sympathy whatever with us, it becomes a matter of considerable importance to attend to now; because, if we give Cook county all the delegates she is entitled to, when you get to the Board of Directors, it will be controlled and run in the interest of Chicago, just as other matters are.

It seems to me then this matter ought to be referred to the Committee on Credentials or to the Board of Directors, and they would decide that the agricultural portion of Cook county should be represented as much as any other section of the State. I therefore move you that this question be referred to the Board of Directors for their decision.

Of course, like other legislative bodies, we are judges of our own members, and the particular question in this case when decided would establish a precedent.

Mr. Hunt, of DeKalb: It seems to me, Mr. President, that is all superfluous. The question is, have we any right to shut their representative out. They have elected their delegates and their representative, and there is but one County Institute in Cook county. What is the use of parleying about it? They are entitled to their rights as much as my district or any other. When other districts knock at the door you have to obey the law, however much you want to shut them out. And when you talk about Cook county not being in sympathy, the only spot for complaint is in the matter of taxes. And if they get in here, I think, before they have been here a year, we will make life a burden to those that do not pay their taxes. But you cannot go into a business house in Chicago without their trying to find out what the prospect is for the farmer. If the farmer fails, their business fails too, and they know it.

Now they simply come to ask for one member of the Board, representing a legally organized Institute. What are you going to do? Let them name their member to the Board of Directors, and when they ask for more, look into the law again.

Mr. Moore, of Polo: Tillers of the soil in Chicago; got to take care of them.

The President: I believe the motion made was that Cook county be admitted according to law.

Mr. Dennis, of Hancock County: Mr. President, I believe that the law decides this question fully, and all these motions will apply to nothing, if they are carried. Therefore to make it apply—a motion to make it plain—I move that the whole matter be laid on the table.

The question then being upon the motion to lay on the table, a division was called for, when twenty-six voted in the affirmative and twenty-seven in the negative. So the motion was lost.

The President: The question now recurs on the original motion.

Mr. Chandler: The original motion was made by me. Several other motions were made, but I do not remember any second to them. My motion was to receive Cook county on equal terms with the other counties, which practically amounts to receiving them according to law. And

it seems to me, that is the only question, whether Cook county, as she has come here and asked for representation, is entitled to representation under this law. I believe she is, and I believe that is the only question before the house.

The motion as thus stated was then put and carried.

Mr. Robinson, of Greenville, moved to adjourn.

The President: Before adjourning I have an announcement to make. The Governor and his wife have requested that the Illinois Farmers' Institute visit him at his mansion this evening, between four and six o'clock, at the convenience of the Institute. This afternoon we shall be in session. I simply want to give notice of this matter, and probably it would be proper for us to get through and adjourn in good season.

The President: Let the adjournment be to half-past one o'clock.

So the Institute adjourned to half-past one o'clock, P. M.

CHARLES F. MILLS,
Secretary.

F. M. PALMER,
President.

HISTORY OF HOUSE BILL NO. 347.
HOUSE JOURNAL.



HON. DANIEL S. BERRY.

On Friday, February 15, 1895, Hon. Daniel S. Berry, of Savana, introduced a bill, House Bill No. 347, a bill for "An act creating the Illinois Farmers' Institute," and earnestly and persistently advocated the measure until it became a law. The bill was taken up, read by title, ordered printed and referred to the Committee on Agriculture.

On Wednesday, March 27, 1895, Mr. Guthrie, from the Committee on Agriculture, made the following report:

To the Honorable the Speaker of the House of Representatives:

The Committee on Agriculture, to whom was referred House Bill No. 347, being a bill for "An act creating the Illinois Farmers' Institute," respectfully begs leave to report the same back and recommend that it do pass.

The report of the committee was concurred in and the bill was ordered to a first reading.

On Friday, March 29, 1895, the House again proceeding on the order of House bills on first reading, House Bill No. 347, a bill for "An act creating the Illinois Farmers' Institute," was taken up and read at large a first time and ordered to a second reading.

On Monday, April 8, 1895, Mr. Berry asked unanimous consent to have House Bill No. 347, on a second reading, made a special order for tomorrow, Tuesday, April 9.

There being no objections, it was so ordered.

On Tuesday, April 9, 1895, House Bill No. 347, heretofore made a special order for to-day, was called up.

Whereupon House Bill No. 347, a bill for "An act creating the Illinois Farmers' Institute," having been printed, was taken up and read at large a second time and amended. * * * *

There being no further amendments, the amendments were ordered printed.

And the question now being, "Shall the bill as amended be ordered engrossed for a third reading?" it was decided in the affirmative.

On Wednesday, April 17, 1895, Mr. Hogan, from the Committee on Enrolled and Engrossed Bills, reports that a bill of the following title has been correctly engrossed and returned herewith. House Bill No. 347, a bill for "An act creating the Illinois Farmers' Institute," whereupon the bill was placed in the order of House bills on third reading.

On Tuesday, May 21, 1895, the House proceeding on the order of House bills on third reading, House Bill No. 347, a bill for "An act creating the Illinois Farmers' Institute," having been engrossed and the amendments adopted thereto having been printed, was taken up and read at large a third time.

And the question being, "Shall this bill pass?" it was decided in the affirmative by the following vote: Yeas 96; nays 8.

Those voting in the affirmative are, Messrs.:

Aiken,	Challacombe,	Hammers,	Mahoney,	Rondeau,
Bailey,	Cochran,	Hawley,	Mell,	Schubert,
Barnes,	Crafts,	Hogan,	Merriam,	Schwab,
Barrieklow,	Curley,	Hubbart,	Merritt,	Smyth,
Beck,	Curtis,	Huffman,	Mounts,	Snedeker,
Berry,	Daugherty,	Ingersoll,	Muir,	Stickney,
Bines,	Davis,	Johnson, John W.	Mulac,	Stoakopf,
Black,	Dean,	Jones, Alba M.	Mulligan,	Taylor,
Bovey,	DeLany,	Kaiser,	Needles,	Teel,
Bransen,	Douglas,	Kent,	Nolling,	Thieman,
Breeden,	Dunham,	Kilcourse,	O'Donnell,	Thompson,
Bryan,	Eakins,	Kincheloe,	O'Harnett,	Watson,
Buckner,	Ellsworth,	Kitzmiller,	Olson,	Wendell,
Burrows,	Farrell,	Lowenthal,	Owby,	White, John L.
Busse,	Ferna,	Lyman,	Payne,	Wilson,
Butler,	Fletcher,	McConnell,	Perry,	Woolsey,
Cahill,	Glade,	McDonald, M. M.	Pickrell,	Mr. Speaker.
Callahan,	Gower,	McFee,	Pilgrim,	Yeas—96.
Cavanagh,	Guffin,	McGuire,	Plotke,	
Celia,	Guthrie,	McLauchlan,		

Those voting in the negative are, Messrs.:

Burke, William, Chicago.	Perrottet, Louis, Mascoutah.
Fitzsimmons, James W., Chicago.	Snyder, William H., Belleville.
Gibson, Melroy H., Chicago.	Tippett, Thomas, Olney.
Miller, James G., Avena.	Nays—8.
Murray, George, Stark.	

This bill having received a constitutional majority was declared passed.

Ordered that the title be as aforesaid, that the clerk inform the Senate thereof, and ask their concurrence therein.

Mr. Berry moved that the vote by which House Bill No. 347 passed the House be reconsidered.

Mr. Ellsworth moved that the motion to reconsider be laid on the table. And the motion prevailed.



HON. CHARLES BOGARDUS.

The bill (237) for an act creating the Illinois Farmers' Institute was introduced into the Senate February 19, 1895, by Hon. Charles Bogardus, who successfully advanced the bill until the passage of the House Bill (347) and its introduction into the Senate, when Senate Bill 237, its counterpart, was abandoned.

SENATE JOURNAL.

On Wednesday, May 22, 1895, a message from the House, by Mr. Peterson, Assistant Clerk.

Mr. President: I am directed to inform the Senate that the House has passed bills of the following titles, in the passage of which I am instructed to ask the concurrence of the Senate.

* * * * *

HOUSE BILL No. 347.

A bill for "An act creating the Illinois Farmers' Institute." Passed the House May 21, 1895.

Signed, JNO. A. REEVE,
Clerk of House of Representatives.

On Wednesday, May 22, 1895, House Bill No. 347, a bill for "An act creating the Illinois Farmers' Institute" was taken up and read at large a first time, and, on motion of Mr. Hunt, was referred to the Committee on Agriculture, Horticulture Live Stock and Dairying.

On Wednesday, June 5, 1895, by unanimous consent, Mr. Hunt, from the Committee on Agriculture, Horticulture, Live Stock and Dairying, to which was referred a bill, House Bill No. 347, for "An act creating the Illinois Farmers' Institute," reported the same back with the recommendation that the bill do pass.

The report of the committee was concurred in and the bill was ordered to a second reading.

And by unanimous consent, on motion of Mr. Hunt, the bill was taken up and read at large a second time.

And the question being, "Shall the bill be ordered to a third reading," it was decided in the affirmative.

On Tuesday, June 11, 1895, by unanimous consent, on motion of Mr. Bogardus, House Bill No. 347, for "An act creating the Illinois Farmers' Institute," having been printed was taken up and read at large a third time.

And the question being, "Shall this bill pass," it was decided in the affirmative by the following vote: Yeas 41; Nays 0.

The following voted in the affirmative, Messrs.

Anthony,	Craig,	Higbee,	Letourneau,	O'Brien,
Aspinwall,	Crawford,	Howell,	Littler,	Paisley,
Barnes,	Evans,	Humphrey,	Lundin,	Sawyer,
Bartling,	Fisher,	Hunt,	McCloud,	Templeton,
Berry,	Ford,	Hunter,	McKinlay,	Wall,
Bogardus,	Green,	Kanan,	Munroe,	Wells,
Brands,	Hamer,	Kingsbury,	Mussett,	Willoughby.
Campbell, D. A.	Harding,	Leeper,	Niehaus,	Yeas, 41.
Coon,	Herb,			

Ordered that the title be as aforesaid, and that the Secretary inform the House of Representatives thereof.

On Wednesday, June 12, 1895, a message from the Senate by Mr. Trovillion, Assistant Secretary.

Mr. Speaker: I am directed to inform the House of Representatives that the Senate has concurred with the House in the passage of bills of the following titles, to-wit:

* * * * *

HOUSE BILL No. 347.

A bill for "An act creating the Illinois Farmers' Institute." Passed the Senate June 11, 1895.

Signed, J. H. PADDOCK,
Secretary of the Senate.

On Friday, June 13, 1895, Mr. Payne, from the Joint Committee on Enrolled Bills, begs leave to report that bills of the following titles have been correctly enrolled, signed by the presiding officers of both Houses, and on the 13th day of June, A. D. 1896, were laid before the Governor for his approval, to-wit:

* * * * *

HOUSE BILL No. 347.

"An act creating the Illinois Farmers' Institute."

On Thursday, June 13, 1895, Mr. Aspinwall, from the Joint Committee on Enrolled Bills, begs leave to report that bills of the following titles have been correctly enrolled, signed by the presiding officers of both Houses, and on the 13th day of June, A. D. 1895, were laid before the Governor for his approval, to-wit:

* * * * *

"An act creating the Illinois Farmers' Institute."

THE ILLINOIS LIVE STOCK BREEDERS' ASSOCIATION.

THURSDAY FORENOON, JANUARY 9, 1896.

The Illinois Live Stock Breeders' Association met in the Senate Chamber at 10:30 A. M., Vice President Charles E. Vigal, of New City, in the chair.

The President: The meeting will now come to order, and we will now proceed with the program. First in order is the reading of the report of the Secretary.

The Secretary, J. H. Pickrell, of Springfield, then read his report, as follows:

Representatives of the Illinois Cattle Breeders' Association, the Illinois Horse Breeders' Association, the Illinois Swine Breeders' Association, the Illinois Sheep Breeders' Association, and others, assembled in the Senate Judiciary rooms, in the city of Springfield, January 24, 1895, and was called to order by Col. W. H. Fulkerson, of Jersey county, who nominated Col. J. W. Judy, of Menard county, as temporary secretary. A caucus of representatives of the above named associations had previously been held, and a committee, composed of Col. C. F. Mills, John G. Springer and J. H. Pickrell, was appointed to prepare and submit to this meeting by-laws for its government.

Said committee submitted the following, which were adopted:

I.—NAME.

This Association shall be known as the Illinois Live Stock Breeders' Association.

II.—OBJECT.

The object of the Association shall be the promotion of the interests of the breeders of live stock in Illinois.

III.—MEMBERSHIP.

The membership of this Association shall consist of the Illinois Horse Breeders' Association, the Illinois Cattle Breeders' Association, the Illinois Swine Breeders' Association, the Illinois Sheep Breeders' Association and the Illinois Poultry Breeders' Association.

IV.—OFFICERS.

The officers of this Association shall consist of a President, four Vice-Presidents, said Vice-Presidents to consist of the Presidents of the Associations named above, a Secretary and a Treasurer.

V.—EXECUTIVE COMMITTEE.

The Executive Committee of this Association shall be composed of the Presidents and Secretaries of the five Associations named above.

VI.—TERM OF OFFICE.

The officers and committees named above to serve one year, or until their successors are elected and installed.

VII.—MEETINGS.

The meetings of this Association shall be held annually in the State Capitol, Springfield, at such time as may be designated by the Association or its Executive Committee.

VIII.—AMENDMENTS.

These by-laws may be amended or altered at any regular meeting (or special meeting called for the purpose) by a two-thirds vote of those present and voting.

LIST OF OFFICERS ELECTED AND EX-OFFICIO.

Col. J. W. Judy, Tallula, Ill., President; Charles Ridgely, Springfield, Ill., Treasurer; J. H. Pickrell, Springfield, Ill., Secretary; Vice-Presidents, J. F. Prather, Williamsville, Ill., President Illinois Cattle Breeders' Association; Charles Ridgely, Springfield, Ill., President Illinois Horse Breeders' Association; Charles E. Vigal, New City, Ill., President Illinois Swine Breeders' Association; R. N. Bell, Decatur, Ill., President Illinois Sheep Breeders' Association.

Executive Committee—J. H. Pickrell, Springfield, Ill., Secretary Illinois Cattle Breeders' Association; R. P. Stericker, Springfield, Ill., Secretary Illinois Horse Breeders' Association; Charles F. Mills, Springfield, Ill., Secretary Illinois Swine Breeders' Association, John G. Springer, Springfield, Ill., Secretary Illinois Sheep Breeders' Association, and the above named Vice-Presidents.

R. M. Bell, of Decatur, Ill., read a paper on "Fifty Years' Experience With Sheep in Illinois." A. J. Lovejoy, of Roscoe, Ill., read a paper on "Swine Breeding in Illinois." A. C. Halliwell, of Chicago, read a paper on the "Breeders' Live Stock Press." Mr. Blake, of St. Louis, and E. E. Cretchfield, of Chicago, being present, were requested to address the meeting, which they proceeded to do. A motion to adjourn was carried.

The Executive Committee convened pursuant to call of President Judy. D. W. Smith, Charles Ridgely and J. H. Pickrell made a committee on legislation, with instructions to ask for an appropriation of \$1,000 per year for the next two years for the purpose of publishing and distributing the addresses and proceedings. The following bill was prepared and introduced in the Senate by the Hon. David T. Littler and passed that body almost unanimously. Upon reaching the House of Representatives it was referred to the Committee on Appropriations, Hon. Thomas B. Needles being Chairman. A communication was addressed to him by the committee urgently soliciting the passage of the bill, but the committee reported adversely to its passage, and the report being concurred in, the appropriation failed.

Following is the bill:

A Bill for "An act making an appropriation in aid of the Live Stock Industries of the State."

WHEREAS, The large and growing live stock industry in the State of Illinois is worthy of proper encouragement by the General Assembly; and,

WHEREAS, The Illinois Live Stock Breeders' Association, composed of the Horse Breeders' Association, the Cattle Breeders' Association, the Swine Breeders' Association, the Sheep Breeders' Association and the Poultry Breeders' Association, is an organization representing the leading live stock breeders of the State engaged in promoting this industry, and desires an appropriation to assist in this work; therefore,

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

SECTION 1. That there be, and hereby is, appropriated for the use of the Live Stock Breeders' Association the sum of one thousand dollars,

(\$1,000) per annum for the years 1895 and 1896: *Provided, however*, that no portion thereof shall be paid for or on account of any salary or emoluments of any officer of said Association, and that said sum be expended by said Illinois Live Stock Breeders' Association in the publication and distribution of such reports and information pertaining to this industry as will tend to promote the growth and develop the live stock interest.

§ 2. That on the order of the President, countersigned by the Secretary of the Illinois Live Stock Breeders' Association, and approved by the Governor, the State Auditor shall draw his warrant annually in favor of the Treasurer of the Illinois Live Stock Breeders' Association for the sum herein appropriated.

The times for holding the annual meetings were fixed for Thursday after the first Tuesday in January of each year.

The report was accepted and ordered to be placed on file.

The President: The next in order is an address on "Our Cattle Interests," by Hon. Lafayette Funk, of Shirley, Illinois.

The Secretary: Mr. President, I will state that I have had communication with Mr. Funk, who said it would be impossible for him to attend, as his brother's wife has just died. He had written something, but got disgusted and threw it in the waste basket. We shall have to excuse him this time.

The President: The next address, then, will be on "Our Horse Interests," by Mr. John Landrigan, of Albion, Illinois.

Mr. Landrigan: Mr. President and gentlemen of the Live Stock Association, the worthy Secretary yesterday was kind enough to invite me here for the purpose of telling you what I know about horses, and in advance I am willing to say that there is a great deal on that subject I do not know, and perhaps it would be better if I knew still less, owing to the condition of the horse business at this time. (Amusement.) As to horses, however, I have my preference as to the kind I think best, which I will undertake to state, within my limited ability, in the paper I am about to read, and when I get through reading I will ask your indulgence for a few minutes while I give you my idea as to how a horse ought to be handled, not only for market but also for our own use.

Mr. Landrigan then read his paper as follows:

[Mr. Landrigan's paper was withdrawn for revision and has not been returned.]

At the close of the reading Mr. Landrigan gave a detailed description of his method of breaking and handling horses, which was listened to with marked attention and followed by hearty applause.

At this point J. W. Judy, of Tallula, the President of the Association, appeared and assumed the chair, saying:

Gentlemen, I intend, generally, to be on time; I was taught that way, and I should have been up here before, this morning, but our State Board Committee was called on to assist in the selection of a site on the Fair Ground for a building to be erected by the Knights of Pythias, and as Mr. Garrard, our Secretary, one of the committee, had to go to Chicago, I was called on just after breakfast to go out myself. And I want to say, gentlemen, the building in view is going to be one of the most beautiful on the Fair Grounds.

Now I understand that Mr. Charles Ridgely, of this city, is down for an address of welcome to this Association, and if the Association would like to hear him, Mr. Ridgely will come forward and say what he has to say.

Mr. Vigal: Mr. President, before Mr. Ridgely begins, I move that the Chair appoint a committee on the nomination of officers for the ensuing year, so that their report can be made during the meeting.

The motion passed, and Messrs. Vigal, Beardsley, Moore of Polo, and Gibson were named as the committee.

The President: Mr. Ridgely will now address the Association.

Mr. Charles Ridgely, of Springfield, then delivered the following address of welcome:

Mr. President and Gentlemen: The duty has been assigned to me, I believe, to make some sort of address of welcome to the Association. And I have to make an apology. I have been absent from home almost altogether for a week and have made no sort of preparation for an address. I came home this morning, after two nights on the cars, and came over here thinking it would be too late in your proceedings to be called on, so I could slip in unobserved and listen to you without being asked to say anything. But it ought not to be hard, even if a man were called up unexpectedly, to say he is glad to see his neighbors who are engaged in the same sort of business and kindred interests; for we are all Illinoisans, and of course as Illinoisans we all realize the value of the live stock interest. We all know the difference between horses, cows and sheep and all that sort of thing because we are raised among them, and we all understand of course that agriculture is our underlying industry, and that the prosperity of the people of the State of Illinois depends on its agricultural interests; and the reason that live stock is valued is because it is a means of turning the product of the farm into money to the best advantage. So everybody who lives in Illinois thinks and feels and sympathizes with Illinoisans, and as an Illinoisan must of course recognize the importance and value of the live stock industry.

And it seems to me, Mr. President, it is particularly appropriate that we should have this sort of meeting. First, those of us interested in any particular branch of live stock breeding meet together separately and talk over such matters as pertain to the particular kind of live stock we are especially interested in, whether beef, horses, cattle, chickens, or what not; and then, in the second place, all come together to talk over with each other the live stock interest in general.

It is a matter of constant pride to me to have been born in this State; and I am approaching the time, Mr. President, when I begin to drop into reminiscence easily, and I look back with a great deal of interest to the time when this State Agricultural Society, of which, to the great satisfaction of us all, you are now the head, was organized; and I remember the curiosity that, as a boy, I felt as to what would result from sending a commission abroad on behalf of our animals—horses, cattle and sheep—and to bring into Illinois the means of making a beginning in the improvement of our live stock. In those days the farmers and the people of the State, in this section, lived for the most part in the timber and along the water-courses, while the vast prairies lay open and never yet touched by the plow. And the live stock on the prairies in those days was just what we happened to get. The little brindle bull roamed in his native freedom, and the resulting stock was of that miscellaneous character we all remember and just such as we should expect under those circumstances. It has been a pleasure to me since, as we went along, to note the fruits of that first experiment by the State Agricultural Society in bringing into the State animals of all kinds of a better type; I say it has been a pleasure to me, as it has been, no doubt, to you, to note what an improvement there has been; until now, when I lately had a chance to visit some of those countries from which these higher-bred animals came, I found that the cattle, particularly in this State now, are better bred for their beef-making qualities, as we find them throughout central Illinois, than are to be found in England or Scotland or any other country you may visit. For there is more admixture of the beef strain with the milk strain and more of the nondescript type on the other side of the water than in Illinois. I speak now of central Illinois, which I know the best. We have been breeding beef cattle here until it seems to be a fact that if a man went into the

country and bought up the first five hundred or a thousand calves he met he would get a better average, so far as quality for beef is concerned, than anywhere else in the world.

If you will excuse me, I will refer to a rather unusual experience I had in that same direction. I was going in a sleeping car into the City of Rome. And I had heard a great deal about the Roman marshes and the Campagna, with all the malaria and disease there, and the danger there was to strangers therefrom, when I woke up in the morning to find myself in the midst of it. I looked out of the sleeping-car window, and there stretched away a great plain which reminded me a great deal of the country I had seen going across Colorado. Here was prairie stretching back and back with not a house on it—back beyond to the low range of hills, foot hills properly, not high enough to be called mountains, with every now and then great stone troughs and streams of water pouring in from the hills. Then all the time appeared a race of cattle for all the world like our Texas cattle, with equally long horns, and always of the same gray or dun color, though when I got near to them they were cattle of a better body and proportion for beef, but they looked just like our cattle of the plains; and after them appeared a lot of those Italians with great broad sombrero hats, for all the world like our cow-boys of the Western plains. That continued right up to the walls of the city of Rome. I saw afterwards where the people were working those cattle, which were always the same—good working cattle—and pretty good beef cattle. And, sir, that sight made me feel that we are further advanced here in Illinois in the improvement of the breed of cattle than they are there. Our cattle here in Illinois are better than theirs. And so I come back to the statement with which I began, that I look with a great deal of pride and pleasure upon the efforts made in the first place by the State Agricultural Society a great many years ago for the improvement of our live stock. It will now be for you, gentlemen, to judge for yourselves in your several different lines of interest how much room for still further improvement may remain; for you gentlemen talking about beef cattle to say whether you get the best stock from the Short-Horn or Hereford, Polled Angus or Galloway or any other breed. It will be for you gentlemen who are interested in horses to decide for yourselves what will be best for you in your line; and here is where the danger lies, in breeding horses we fancy rather than horses that will sell. It will be for you gentlemen to say how much further we shall go, in the State, in the introduction and use of the French coach horse, the Hackney, the American trotter, the thoroughbred and all that. And it seems to me, sir, nothing but good can come from all this, and that the fruit of meetings like this must at last become apparent, as the fruits of the efforts of the State Agricultural Society so long ago have been; and if we are further removed from the crude stage than when we began, then those results perhaps may not be so conspicuously apparent, but they will be equally certain. And after having got ourselves at last to a point where we can look around us, as we do now, and find that we are not so badly off with regard to the different kinds of live stock in this country, we shall have more leisure to subdivide our studies, and select from all the best strains, and turn our attention and efforts to those kinds that will be chiefly wanted throughout the world.

Mr. President, I find it comes easy to talk to people like these, as the matter goes on, and you will excuse me, therefore, if I say one thing more.

There is an old saying, I have tried to take to myself:

"Sweet are the uses of adversity."

Now we have had pretty hard times here of late, and I could prove it by many gentlemen here before me in the room; not very much outcome here in the last three or four years, particularly for those who have been in the line of raising horses, for they have not found that business profitable. There have been reverses that have tried men's patience, nerve and endurance in every way, to continue in the business and hold up their heads. But, sir, such a state of things has done this; one of the

"sweet uses of adversity" has been, it has opened for us, in the horse trade, the markets of the world in a way we have never had before. I remember to have crossed the ocean, five years ago, when a shipment of Norman and French coach horses by Mr. Dunham, of Wayne, in DuPage county, was coming over. I imagine, since that time, we have sent more horses back than we have brought this way, and the experience thus acquired has undoubtedly given us knowledge as to the kind of horses needed for the other side. My own observation is to the effect that in fitting the supply here to what is wanted over there, the kind needed is a little stouter, a little stronger and more serviceable and durable horse than we have been raising here. And I am very apt to think, when I find people in any business a long time, settling down to any one type of thing, there is some good reason. These people have been working horses in omnibuses, in carriages, in cabs and with cultivators, in every way, for a long time; they have had a trained corps of observers studying up the subject, and I think it is a question we ought to consider very seriously as to whether we may not profit substantially by the judgment of these people by turning our attention to raising the types of horses of different kinds that they have used and raised, observing carefully if our own interest does not lie in the same direction. At any rate, if we raise horses to sell, we have to raise horses to suit the market, not suit ourselves but our customers.

I have lately seen a gentleman who spent the summer in Scotland, and who told me he found his friends there using American horses. One friend says, "Come, I will show you a pair of horses from your country." Another, "I drive a pair of American horses." And the gentleman said, "It was a great pleasure to me to hear them commend our horses. They were glad to get them because they were cheaper, and as good as any they had, and they were satisfactory in all respects."

Now, Mr. President, all this only occurs to me in connection with the future of the live stock business. We can look back over the past and mark its progress as the fruit of the efforts for improvement that have been made. We can look back now and see that all the time spent and all the money spent has been profitably spent. We can show, I think, that in the live stock of this country to-day there is a value that will more than compensate for all the money spent to produce the result. We can look back now over the the past and justify all the efforts and expense of the State Agricultural Society; justify it in live stock alone, without regard to improvements in agricultural implements and all that. So it seems to me appropriate, if I am to make the address of welcome, to say there is still a field for effort and enterprise. The history of the past shows that it has paid the people of the State of Illinois to have their representatives looking after the improvement of the live stock of the country, and I infer from that it will continue to pay. There are so many points in which this matter comes up that it is difficult for one to pretend to say anything that will be at all conclusive or complete with regard to it. I have been talking more with respect to horses, because I have had more to do with the raising of horses than I have with the other kinds of stock in this country. In old times cattle were relied upon, and people were cattle raisers, when cattle were different from what they are now, and when about the only way to make a bushel of corn pay was to feed it to a steer. When I was in a bank, they used to come to us for help to feed their corn to the cattle, and thereby got double the price for their corn they could have got by selling it; and I used then to feel that I was a small link in the chain of the live stock business and had something to do in promoting it, and the man that had anything to do in aid of the value of the corn when raised was useful and not a drone.

Mr. President, I am very much obliged to you for listening to me in this hap-hazard, rambling style of remark, but it is so easy to say we are glad, when we are glad, that it has given me a great deal of pleasure to say it. (Loud applause.)

The President: I have been in Illinois a good while, and while listening to Mr. Ridgely's address I was a good deal interested—seemed all sensible and practical, and in fact, where he spoke of his pleasure in talking to a crowd like this, he reminded me of an old gentleman I knew who was in the habit of going along talking to himself. And I said to him, "Why is it you are so continually talking to yourself?" "I have two very good reasons," said he, "In the first place, I love to talk to a sensible man, and in the second place I love to hear a sensible man talk." He reminded me of that. (Amusement.)

But recollection carries us back, and many of you can point out the very course you have been pursuing from the time you first came to the State of Illinois right along up to the present day. And while we have made great progress—wonderful progress—why, I could see deep prairies around here forty-five years ago; we started out through here, and it was one grand prairie all the way, and it was supposed by many people that it never would be settled up. Still those prairies now blossom as the rose, all in fine cultivation. So you see the wonderful strides that have been made.

I am most gratified to see such a grand representation of the natural interests of our State scattered around, and the interest taken in these matters here to-day. And, gentlemen, I congratulate you on the improvement and advancement we have witnessed, and that is all I have to say. And now, as I am glad to be here, I will not detain you further at all, because it is not necessary to do so. There are parties here who have papers to read and that should be discussed fully, and I hope that when a paper is read you will all feel willing to get up and say what you have to say.

I was wonderfully pleased with what friend Landrigan had to tell us about the horse. A horse is a good deal like a man; you can gentle him on one side, but you have to be careful—I have seen fellows like that, gentle on one side, that never did get gentle on the other. (Laughter.)

We will now hear from friend Lovejoy on "Our Hog Interests."

A. J. Lovejoy, of Roscoe: Mr. President, I fear the hog will sound rather tame after so much horse.

The President: Well, there is some hog here too.

Mr. Lovejoy: The hog pays the rent.

The President: That's right.

Mr. Lovejoy then read his paper as follows:

OUR HOG INTERESTS.

From the first settlement of our country the hog has been an important factor in the interests of agriculture, and from year to year, as our country grows older, the breeding and feeding of swine keeps pace with the other great industries of this country.

I find that for the year 1895 the receipts of live hogs at Chicago alone was 7,901,883, and for 1894, 7,483,228, an increase for 1895 over 1894 of 417,655. In addition to this there was received 44,262 dressed hogs during 1895. There was exported to Germany and France during 1895 pork alone to the amount of 45,094,691 pounds; and for 1894, 35,537,598 pounds; for 1893, 20,677,410 pounds. This shows an increase of exports of pork alone for 1895 to have been 9,557,093 pounds, and that while all industries are lagging, and many are at a standstill. The hog industry has steadily increased and is to-day in spite of all the draw-backs surrounding it, the most profitable of any department of the varied products of the farm in general, and certainly as to the progressive farmer. And it is only the progressive farmer who is a reader, and who thinks, who uses brains as well as muscle in his business, that can hope to succeed in the future.

The Farmers' Institute of the different States, and the State Experimental Stations are doing a most valuable work for the benefit of all who are engaged in agriculture, or the breeding and feeding of domestic

animals. The results of these experiments and investigations in throwing light upon the production of crops, and the discussions at the institutes of this country, have done more in the last ten years to awaken an interest in our methods than was done in a lifetime of earlier days. Yet how many farmers there are in every community who still persistently stick to the old methods and farm as did their grandfathers, and in the growing of swine think that anything is good enough for a hog; or that there is nothing in improved blood or improved methods, as a hog is a hog, and that is all there is to it. These are usually the kind of farmers who are always running down their own business, claiming it does not pay. What would this kind of a man do in any other business?

The hog interests of this country is the sheet anchor of our prosperity, and as such should command our best care and attention. He not only brings profit to the farmer beyond most of the domestic animals by condensing the products of the farm from the raw material into a finished commodity that is in demand all over the world, but he keeps the wheels of industry oiled. He is also the foundation of the Armour Institute of Chicago, where the poor can secure a practical education and become useful citizens. He is also being used by unscrupulous persons in adulterating our cheese, and in this manner, while making another profit, is injuring another of our greatest industries—the dairy. A shame that this is true. As “time changes all things,” so it has changed the demand for our pork products, and the profitable hog of to-day is a very different animal from his early ancestors, and from the very nature of his changed conditions it is necessary in order to make the greatest profit from him that he must be properly fed on such food as produces growth and muscle, and given the best of care and attention, by being sheltered from the winters’ storms, and the summer sun. During the earlier part of his life, while yet suckling, he should be taught to eat by arranging a place where he will not be molested by the older animals, and should be given, if possible, sweet skimmed milk with wheat middlings. This with a small portion of corn meal added, or even whole corn, will develop him very fast, and by the time he is weaned, (which should not be under three months of age) he is well on towards early maturity. Pigs farrowed early in March can be ready at weaning time to go into the clover pasture, than which there is no better or cheaper feed. At this age the feed should be somewhat changed. But if desired to push them for earliest possible shipment, they should have a little slop as before, together with what corn they will eat. At this season of the year I would prefer the corn-shelled and soaked in water twelve to eighteen hours, or until somewhat softened. By feeding in this manner they will eat more and digest it easier. They should have good shade in which to lay during the heat of the day, and also have all the pure fresh water they can drink, as the demand is now for a hog of from 200 pounds to 250 pounds. You will by this treatment have your spring pigs ready for the market at from seven to eight months of age, or less, and they are ready to command the highest price in any market, and have arrived at this weight in a very short time and at little expense.

While a strong believer in early maturity, I doubt not that many of our feeders and breeders have carried it almost to the danger point by using corn as their only grain food, and by forcing the pigs on this for generations have materially weakened the constitution and subject them to the many diseases which the modern hog is heir to. Whereas, if milk, middlings, ground wheat, rye, oats, or a combination of any of these were used, with a little oil meal added, until the finishing period, then finish upon corn, we would have a hardier, healthier animal and be less liable to contract disease.

Many would prefer to use less grain and get more from the clover, which is also a very profitable method where a little more time is needed to mature the animals. Good thrifty shoats on clover pasture grow and thrive well. An acre of good red clover pasture will make 400 pounds of growth on hogs, and is a cheap and healthy food. Young hogs that have had nothing but clover during the flush of the season, and then changed gradually to a full feed of corn, will put on more pounds of fat per day than can be done in any other way. I have in one instance made an average gain of $3\frac{1}{2}$ pounds per day for a period of sixty days on a bunch of thrifty shoats by this treatment, using old corn shelled and soaked. Some may prefer pasturing until new corn is ready to feed, but I am of the opinion that too much new corn fed to young hogs is not as safe as old corn, even though the cash value of old corn is much higher. I consider new corn rather a dangerous feed. It seems to in some way injure the digestive apparatus, and get them into a condition to be totally unable to withstand an attack of disease. Some even go so far as to claim that exclusive new corn feeding will cause cholera, but this I think impossible, believing that nothing but the microbe or hog cholera germ will do this.

In years past farmers thought a hog must be fed until he reached a weight of 350 to 500 pounds before he was ready for market, but have found that they can grow two hogs of 200 to 250 pounds cheaper than one that weighs 500 pounds, and thus avoid much of the risk.

While the growing of swine is no doubt one of the most profitable industries, it has its difficulties. There is a dark side to this as well as all other industries, and much of this cannot be avoided. How many have had a fine, thrifty bunch of early pigs in the spring, and have given them the best of care and attention throughout the summer; have watched them each day thrive and develop in such a satisfactory manner, and are anticipating the profit for the care and feed, only to find at the next feeding time that one or two are a little off their feed. They come out with backs arched, heads drooping and a staggering gait. This is a time that tries a man's nerve and sets him to thinking. He must never weaken under this most trying ordeal, but act, and act quickly. This is where many make a mistake by losing their heads and getting discouraged. While we know that a bad case cannot often be cured, much can be done by eternal vigilance. We once saved 80 per cent. of our herd by at once separating the well ones from the sick, and not the sick ones from the well ones, and removing them some sixty rods from any other hogs into a grass lot of about two acres, containing a good dry shelter. This sleeping place was thoroughly cleaned every day or two, disinfected with air-slacked lime and carbolic acid and water. The troughs were treated in the same way, and clean rye straw used for bedding. No corn was fed, but a feed of middlings, ground oats, and oil meal given, this being a cooling diet. Faesh water was given, some aconite put into the drinking water to allay any fever that might occur. Have also used nitro muriatic acid, as prescribed by Dr. McIntosh, Professor of Veterinary Science of the University of Illinois. This we consider a grand, good anticeptic, but, as the Doctor says, must be used with caution. We recommended it last fall to a party who was losing his hogs. He put the dose for some sixty young hogs into the drinking water, and the few that came out and drank got the most of the acid, and it killed ten of them.

I am not advocating any cure, or that it can be cured, but believe that by the strictest measures of sanitary surroundings and a determination to never let up with care and such medicine as you deem best at the time, that a fair per cent. can be prevented from taking it. If it were not for the ravages of disease, there is no telling where the hog interests of this country would end. Perhaps they would become so cheap that they would not pay. But as it stands to-day there is no part of the industries of the farm that can be made to pay as well as the growing and feeding of such hogs as the markets of this and foreign countries

demand. Let us use better methods; give our best care and attention to every detail of the business, and in times of trial have lots of pluck, and success will attend us, for

"Pluck wins, it always wins,
The days be dark and nights be slow
'Twixt days that come and go
Still pluck wins. It's average is sure.
He gains the most who can the most endure.
He who faces issues, who never shirks,
Who waits and watches and who always works."

A. J. LOVEJOY.

Roscoe, Illinois.

The President: Any remarks, gentlemen? When a pig arches his back and gets his tail down, then you may know he has got it.

Mr. Garrison, of Jefferson County: Mr. President, I want to inquire what breed is best.

The President: That might be embarrassing, and these discussions are not to boost any particular breed.

Mr. Garrison: No, but he is a practical man, and seems to know what he is talking about. We all have our favorites.

The President: This is a general discussion. Do not want to boost anybody's hogs or cattle.

Mr. Lovejoy: Mr. President, I do not care to advertise my breed, and anybody could tell. But I am a Berkshire man, and next to that breed any of the improved ones I think is all right.

Charles Wood, of Morgan County: Mr. President, as I have succeeded in passing through the hog cholera, while my neighbors all around had it, I would like to tell how I worked it.

Mr. Lovejoy: We can all do it some years, and perhaps the next year will take them.

Mr. Wood: All of the bunch that had it I thought I could cure, but I could not. I did not, however, lose one of my own. I used my own remedy, not an advertised patent medicine, but an I have a medicine of my own, and that is nothing but salt and ashes. When that fails, I use leached lye and salt. That is a little stronger than salt and ashes. But a man who used leached lye once distributed it around too freely and it killed his hogs. Dissolved lye seems to kill anything inside the hogs if properly handled. It is the best remedy I have found and it has succeeded well. I practice with that remedy until it fails. I had a hundred hogs, and my neighbor's were right up adjacent to the fence, dying of the cholera, and he did not succeed in saving his hogs and I did. Bet him I would. There might have been something in the fact that I put my hogs on straw and burnt up the straw once a week. And I used pure well water, and cleaned my troughs out thoroughly before and after feed each day. I fed with a platform on each side of my trough. I have soaked my feed for three or four years. My observation was that I was not getting the full strength of my feed unless I softened it. I have finally added a steaming arrangement, and I find much better results.

Mr. Lovejoy: So you can mash it with your finger. But so far as lye is concerned, I fed fifty cases of it, and I lost a hundred head at a time with lye. It is like a good many other things—it takes sometimes, but not always. This year I bought a sow and pigs; got them home, and the sow and her pigs died, but never another one. I had disinfected each place with carbolic acid and water each day. I have a charcoal pit pit four or five feet deep, cemented up, and in that I build a fire and throw in cobs, covering the pit over with sheet iron; and I keep that going right along, so the hogs get all they want. It is a good thing for the stomach. But nothing in the world will kill the microbe, if it once gets in.

Mr. Wood: I sprinkle my sheds with lime and warm water every other day and at night. I use no bedding at all in warm weather. If the hogs are too warm, I set the north side three feet open and the south side two feet open. I have it so it is easy to sprinkle, and I have a dirt floor.

Mr. Lovejoy: I prefer a dirt floor.

E. H. Goldsmith: Mr. President, we may be breeding our hogs so as to induce hog cholera. It seems we do not know very much about the disease. We do not know how to prevent or cure it. Of course we appreciate all the remedies, and do all we can.

It has been a sort of theory of mine, that perhaps we are forcing our hogs too high, breeding them too young, and thus destroying their constitutions and making them liable to this and other diseases. It strikes me, in my experience, that when hogs used to have a longer time to grow—for in many sections they ran out several months after they were considerably grown—while they were razor backs, and did not in those times breed to the greatest degree of perfection, yet they were a hardier race, and without these diseases. And it is my opinion, if we gave more time to the hog to litter, we would have stronger constitutions and grow out of the hog cholera. If I can get any light on that line, I want it.

Mr. Lovejoy: Mr. President, that is good talk. The hog has been bred too high. Hogs are not very much refined, but there seems to be a rush by everybody to get their hogs to market in six or eight months. We are not giving them bone and sinew enough.

Mr. Goldsmith: Whenever we get out of nature's way, we make a mistake.

The President: These are very interesting topics to me, gentlemen. There are three diseases in this State of ours that I do not think there is a man living understands an iota about. Take hog cholera, so-called, "milk sick," as it was once known, and Texas fever, and there is not a man smart enough to tell how or when or anything about it.

A Voice: "Milk sick" is played out.

The President: All say, "It is not here, but over there they have it"

The next would be an address on "Our Sheep Interests," by E. E. Critchfield, if he were here, but time is passing, and we will now have an address on "Our Poultry Interests," by Hon. Morgan Bates, of Chicago.

The Secretary: Mr. President, owing to sickness, Mr. Bates has been unable to attend this meeting of the Association, but thanking the Association for calling upon him, he has furnished a paper, which I will read at your desire. I will state, before reading it, that during the sittings of the house the matter was brought prominently before us, and here is another discussion on the same subject. It is short, and will take but a little time to read.

The paper from Mr. Bates was then read, as follows:

OUR POULTRY INTERESTS.

MR. PRESIDENT AND MEMBERS OF THE ASSOCIATION:—If you were to find five hundred dollars on your barn floor would you be angry?

If you were to find a bag of those despised silver dollars—which some of our newspaper friends tell us are not all they should be as to moral character—if a bag with five hundred of those wicked silver dollars were to be left on your barn floor, and no questions asked, would you kick the feathers off the "buzzard," because it happened to be a bird?

Assuming that no one of you will dare to assert in the presence of men who know you that such an extraordinary event would disturb your temper, I venture to ask: Then why do you kick your hens?

I do not claim that all of you actually kick or literally abuse your patient fowls; but in a metaphorical sense it can be laid down as a rule

that the majority of farmers *do* act in this manner. I dodge behind that term, "farmers," and so escape your wrath—you, as live stock breeders, are exempt from the charge.

But why do farmers berate their fowls? Simply because they believe that the poultry on their premises do not lay enough eggs. Is that, if it is true, the fault of the fowls or of the farmers? It may be stated as a fact in agricultural philosophy, that the greater number of farmers in this broad land secretly entertain the notion that poultry is a small item, and one far beneath the attention of grown-up men.

This statement does not apply to you, members of the Illinois Live Stock Breeders' Association, for you understand the value of all productive adjuncts of the farm and yards. I am speaking of the average farmer, and that, too, with a feeling of sincere regret, not of malice or contempt. But do you, in your capacity of exemplars of all that should be done in the breeding line, always maintain the right attitude on this subject? Do you fully appreciate the feathered flocks as an element of possible profit, not only to yourselves, but to those who follow your leadership? A hen may not be as big as a Percheron, but she does not cost as much, either; while in proportion to her value, she pulls fully as much out of the food she consumes, and makes a much smaller hole in the profits when she dies.

A thorough breeder of large stock does not hesitate to draw his check for hundreds of dollars when he desires a notable horse, or bull or boar. Such a man is accustomed to doing things on a large scale. And when his pet animal suddenly drops dead, the loss is met with corresponding dignity. Probably not one of you here but has known the pang of burying an animal which, the week before, you proudly pointed out as the pride of your herd.

At such a time as that did it occur to you that the same amount of money invested in poultry could not have been swept away as quickly, except by cyclone or flood? Did it ever occur to you that a few hundred fowls rightly kept on your place would yield you cent per cent more than your boasted stock on hoofs?

Don't think that I am going to force a mass of statistics down your ears. If you are anxious for figures, there are other ways of getting them. Your Congressman will be delighted to load you up with census reports. Election time is nearly here, and that's what he is for. He is squirming around in his seat now—if he isn't taking a quiet hand at the national game—to find out who among his dear constituents is starving for statistics. He didn't make them, but he would like to make you think he did. So, if you want to know that the total value of the poultry products of this country the past year aggregated about five hundred million dollars, why, send to him and he will show it in black and white. You needn't vote for him on that account, if you desire a change; he didn't make the hens lay; he is not a condition powder.

But the solemn fact is—and your wives will bear me out in this, no matter if you do get up and object—poultry is mighty and will prevail. You may crush the fact to earth, but, unlike the traditional egg thus treated, the fact is truth and will prevail just as long as there is a woman who can cook a chicken to the queen's taste—or your's. Don't try to dispute this fact. If you do, I shall silence you by asking if you ever sat down to a satisfactory meal where eggs or poultry in some form were not represented. At your present hotel—anywhere, everywhere—eggs in all styles, except such as you get at home. But they are eggs, just the same, and they were, once upon a time, laid in all seriousness by some of those despised hens—some of those trifling, no-account nuisances which certain men think are too insignificant to be brought up in the nurture and the admonition of the lords of the breeding world. There is no danger of the business being overdone. Is *your* line of breeding ever in such peril, my good sirs? Are prices always up there where you wish to see them?

Gentlemen of the Association, what are the inducements that caused you to assemble here? I would express that somewhat differently if we were in any other building and surrounded by any other atmosphere than the political oxygen of Springfield. I would simply say, were the place and influences other than these: What are we here for? But this is not a political speech, nor is this—may I be allowed to express thanks?—a political convention. We are *not* here “for offices,” save and except the good offices of peace and the always commendable duty of trying to aid the great, the *grand* cause of thorough work in the field of raising high-grade stock. You are all thoroughbreds in that undertaking, and you believe in thoroughbred breeders. I go one step farther, perhaps, than some do in this matter and assert that it makes no difference whether the “stock” thus advocated wears hair or feathers—the principle is precisely the same. Pure blood, bred by rule and intelligent matings, is the system we advocate.

It is not necessary to offer advice to you on this point. Each one of you will coincide with the general proposition that if breeding is to be engaged in as a vocation, none but the best stock should be employed. The line of argument to be advanced, therefore, is simply as to the nature of the stock. You have decided upon the heavier animals. That is good. But I suggest that there are corners in your yards where, at but slight expense, another variety of stock may be provided for with quite as much credit to you and still greater per centage of profit. This variety wears feathers—except at Thanksgiving or holiday time, and then it is clothed with the adornments which only your wives, your mothers or your sisters can properly prepare—a garb of parsley, sweet potatoes, chestnuts, oysters and gravy.

Then, and not until then, does the thoroughbred fowl show for what it truly is. Did you ever have the temerity, at such a moment, when your mouth was watering from expectancy, to say that you think fowls are unworthy the attention of a full-grown but empty man?

Turn your mental eyes backward, gentlemen of maturer years, and recall the days of your boyhood, before the days of the real glory in the poultry-yard. Do you not remember the yellow-legged hen and the visiting parson? Do you not, in memory, chase the gaunt creature—that is, the fowl, not the parson—from barnyard to orchard in your struggle to capture it? And do you not feel, even now, the sense of goneness you deplored when your mother told you not to ask for a second helping at dinner, because the scrawny animal wasn't big enough for the parson and all the rest of you? Would you have that mongrel chicken back again? Do you experience such agonies to-day, when the modern clergyman of your denomination—for of course you are all good churchmen—comes to your house to Christmas dinner? The chances are that you not only appropriate all the praise of the size and lusciousness of the fowl, but even the honor of the cooking of it, which belongs to your good wife. But pause right there! Don't infringe upon the rights of others. Remember, gentlemen, that this is not merely the era of the New Woman—it is also the era of the New Hen. And the modern woman has made the modern hen possible. While you have been raising the—well, the horns and hoofs, *she* has naturally turned her thoughts to feathers, and she is able to plume herself on the result.

This is said in all earnestness; for poultry-raising is a vocation which may be engaged in by women and the youth of the family with pleasure and profit in a double sense. It has, as the first, an intrinsic value; and, as the second, an educational quality which serves well to develop the love of thoroughbred work by your sons and daughters, preparing them, without hazard, for any broader endeavor their tastes may dictate in later life. The laws of production can be here studied, and the commercial instincts brought into activity. You might not care to entrust the herd to the inexperienced beginner, but you can raise no reasonable objection to placing a few hundred fowls under the care of your bright boy or

girl, with the view to teaching the lesson of stock culture. Women, also, have made notable progress in this line of work, and many have gained independence by means of it.

Those men who do not care to see women independent—those who are afraid the women will know more than they do, should drive every thoroughbred fowl off their place. For the agricultural women of to-day will have none other than thoroughbreds. But, mark you, gentlemen, if you hear of such a man, teach him the error of his ways. Caution him not to let the women catch him at such a trick. He should be reached in time, or the women will declare he is no thoroughbred. And may heaven help the miserable man against whom the woman of the Twentieth Century pronounces that verdict!

I am not trying to tell you how to mate, or feed, or care for fowls. There *are* ways to find that out—if any of you are dying to learn. Yes, there *are* ways; but that is another story and is told in certain pages which modesty forbids me here to name. Suffice it to say that this talk is designed to awaken a latent interest in poultry.

At the outset I startled you, perhaps, by asking if you would like to find five hundred dollars on your barn floor. Well, I'm not going to lay it there.

And speaking of hens, if you truly want a suggestion as to how to make up some of the losses on long-price cattle or pedigreed hogs—how to compensate yourself for that nine-hundred-dollar boar which was so bored with the monotony of living that he died a few days ago—I remark: Keep fowls. Keep *good* fowls. They will do what I decline to do—what I couldn't do—they will lay that five hundred dollars in your inside pocket.

There is not a farmer in the mighty State of Illinois, from the boundary of Wisconsin on the North, to where it pokes its prongs into the turbid waters of the Ohio on the South, who might not, if he would, add five hundred dollars in sweet, clean cash each year to his store of revenue.

The poultry industry is not a fad. You will observe that I have avoided the words "fancy" and "fancier" in speaking of those engaged in this vocation. There *are*, it is true, enthusiasts who carry their admiration for the feathered race to the extreme limit, as there are wealthy breeders in your special domain who indulge in expensive luxuries. But this phase of poultry raising does not come within the theme I speak of, nor is it a policy I advocate. In Europe, as in our own land, the cry has gone out for *utility*. America boasts the proud distinction of presenting to the world the best breeds of fowls ever effected by judicious selection and intelligent mating. Such effort must be successful in any realm of action. We are nearing the commencement of a century which will hold vaster measure of progress than has yet been known. Only the best product will survive—only the best should survive.

The poultry industry of Illinois, of America, of Europe, includes within its personal ranks men of fine intelligence and prosperous performance.

It rests with you, gentlemen—you of avowed and demonstrated love of thoroughbred stock—you of proved and confirmed devotion to a correct principle of the problem of profit in rural vocations—to set the pace for others. You are, as it were, in the saddle. You lead the line of advancing farmers. You act for them; you speak for them. You leave the saddle only to mount the rostrum and utter words of counsel and advice. Your face must therefore be dignified; your words wise. Should you neglect a branch of industry worthy of the best efforts, the more careless and less original mortal would say that as you sneer, so may he scoff. Should you, the exemplars, provide no higher class of fowls than he does to mingle with your choice-bred stock and show defects in plainer view by contrast with the best of other kinds, the farmer of ordinary mind would say, there is no profit in poultry. He would be right, for within the lines of that kind there is no profit.

The structure you have raised, founded upon the theory and practice of scientific breeding, buttressed with the firm doctrine of utility, must be judged by its weakest point. If you deny a right to the operation of your rule here, you diminish the capacity for usefulness of all your work. Let us join hands and agree that the cry along the entire line shall be: "Thoroughbred."

MORGAN BATES.

The Committee on Nominations brought in their report, and the existing officers of the Association were re-elected for the ensuing year: President, J. W. Judy; Secretary, J. H. Pickrell; Treasurer, Charles Ridgely.

The Association then adjourned.

ILLINOIS CATTLE BREEDERS' ASSOCIATION.

From fifty to sixty members assembled in the Senate judiciary room, 10 o'clock A. M., January 8, 1896. The meeting was called to order by President J. F. Prather, of Williamsville. Hon. D. W. Smith, of Springfield, being present, welcomed the members in a neat and appropriate speech, which met with a hearty response from President Prather. The Secretary presented his report, which is as follows:

Mr. President: In the absence of formal minutes, which the Secretary is supposed to present to you, I will make a short report, giving a little history of the doings and the out-growth of the Illinois Shorthorn Breeders' Association, that met at the Capitol building, 10 A. M., January 24, '95. J. F. Prather was selected Chairman pro tem. of that meeting. J. R. Fulkerson was chosen Temporary Secretary. Upon motion this meeting was resolved into a meeting of the cattle men of the State, with which all other cattle associations were invited to unite. J. F. Prather, Williamsville, Illinois, was elected President. B. N. Pierce, Creston, Illinois, Vice-President; J. H. Pickrell, Springfield, Illinois, Secretary; Thomas Clark, Beecher, Illinois, Treasurer. Executive Committee, W. H. Fulkerson, Jerseyville; Jno. G. Springer, Springfield; A. P. Grout, Winchester; T. C. Ponting, Moweaqua; A. N. Lodge, Monticello. Messrs. Prather and Pickrell were appointed to act with like committees of similar associations for the purpose of organizing a general Illinois Live Stock Breeders' Association. No constitution or by-laws were adopted, consequently there are no names enrolled as members, if you will except those names in the list of officers. The Secretary states that that committee appointed to consult with committees of other Live Stock Associations met and perfected such organization, which is known as the "Illinois Live Stock Breeders' Association," and is composed of the members of The Illinois Horse Breeders' Association, The Illinois Cattle Breeders' Association, The Illinois Swine Breeders' Association, The Illinois Sheep Breeders' Association and The Illinois Poultry Breeders' Association. The Secretary also suggests that at this meeting a committee be appointed to prepare a constitution and by-laws so that the Illinois Cattle Breeders' Association be perfected. All of which is respectfully submitted,

J. H. PICKRELL,
Secretary.

HOME AND FOREIGN DEMAND FOR BEEF PRODUCTS.

There are some thirty million cattle in the country, not counting half as many milk cows. Cattle are not kept more than half as long as they were ten or fifteen years ago, which fact adds much significance to the figures. In other words, it makes a whole lot of difference whether the

thirty million cattle in the country at a given time are consumed within two and a half years, or whether they last five. This development of the early maturity idea is one of the large factors in making it harder for old-time cattle men to estimate the available crops of beef animals. Most of our best cattle are under two and a half years, and many of them are still a year younger. Indeed, feeders are so anxious apparently to cut down the ages that we get some "long yearlings" that people are inclined to think they have been yearlings *long* enough to entitle them to at least a second birthday party. However, the "baby beef" fad has outgrown the fad stage and has come to be recognized as the correct and profitable thing. It has been a very common thing of late to have 1,000 and 1,200-pound cattle far out-sell 1,500 and 1,800-pound beefs. The fashionable cuts of beef are now smaller than formerly. A man of small family can get a steak or a roast the size he wants from a light quarter, while the proper shaped cut from an 1,800-pound steer is quite too large for the average family.

During the recent Christmas markets some 1,173-pound steers sold at \$5.25, with ripe, thick-fat 1,875-pound old-fashioned Christmas cattle that had eaten lots of 40 and 45-cent corn at \$4.60. On one day some prime fat steers averaging over 1,700 pounds sold at \$4.25, with some steers averaging more than 1,000 pounds less at \$4.20. These facts are well calculated to make feeders realize that as far as the home demand is concerned the big heavy cattle are out of fashion, and you all know the social maxim that "one might as well be out of the world as out of fashion."

During the past year while three or four of the principal markets of the West handled nearly 700,000 fewer cattle than in 1894, prices at the end of the year were decidedly lower than at the opening. There was a sudden and unexpected re-action after the top point of the year, \$6.60, was reached last March. There were various contributing causes for that, including general hard times, weak foreign demand, low prices for other kinds of stock, but none was more potent than the widely heralded allegations of the Secretary of Agriculture about there being a beef trust to advance the price of beef beyond figures that poor people could pay. The allegations had the widest possible circulation owing to their emanation from an authority who was supposed to be devoting his best efforts to the advancement of the interests of the live stock and agricultural classes. The consumers at once argued that if the supposed friends of the cattle producer were taking such a position it was high time for them to begin practicing vegetarianism. However, the fact remains that while the cattle supply was so short as to make dealers look for extravagant prices the people got the impression that beef was dear at any price, and so prices steadily moved downward after the first quarter of the year, closing at the very bottom. The economical fad caused by hard times made people use less meat and look for substitutes.

The outlook for an improved home demand for beef cattle is better on two principles that "when a thing is as bad as it can be it can get no worse" and that "everything in the universe is continually changing."

A Chicago packer says:

The influence of the depression of business has been felt less by the packers in the quantity of product which has been consumed than in the manner in which orders have been sent in. Where they have formerly been accustomed to receiving carload orders at stated periods, the orders have been coming in more frequently, and for much smaller quantities. There has seemed to be a general lack of confidence in the course of the market as well as of funds in the hands of many of the jobbers and wholesaler, and the consequence has been that the country at large has been doing a hand-to-mouth business for nearly the whole year.

Canned meats, though practically barred out from the foreign markets, to a great extent by the low prices being made for Australian and South American goods, have more than held their own in this country. The

domestic business for the year will show an increase of probably 15 to 20 per cent, and the demand is still growing, as the excellence of the goods turned out by the Chicago packers, as well as their economy and convenience, become better appreciated.

The butterine industry has been crippled to a great extent by adverse legislation in many States, backed by the dairy interests. Only about 45 per cent of the territory where goods could be sold last year is now available to the manufacturer of butterine. Notwithstanding this the article is fast becoming a staple one. It is becoming better known and appreciated every day in the States where its sale is allowable.

Beef extract is becoming known as a food product rather than as a medicine, and sales of this article have almost doubled every year, last year being no exception. It is now considered a household necessity with all good cooks and is to be found in every first-class grocery, while it formerly could be secured only from the druggist.

Labor-saving machinery has been put in from time to time by the packers, and outlets are being sought at all times for some hitherto unused by-product or some method of increasing the value of by-products already manufactured.

The following list will give an idea of what packers are doing in the way of saving by-products formerly wasted:

The stomachs of hogs, instead of being sent to the rendering tanks, are now used for the manufacture of pepsin.

Pigs' feet, cattle feet, hide clippings and the pith of horns, as well as some of the bones, are used for the manufacture of glue.

The paunches of the cattle are cleaned and made into tripe.

The choicer parts of the fat from cattle are utilized for the manufacture of oleo oil, which is a constituent of butterine, and for stearine.

Large quantities of the best of the leaf lard are also used for the manufacture of what is known as "neutral," also a constituent of butterine.

The intestines are used for sausage casings; the bladders are used to pack putty in.

The undigested food in the cattle stomachs is pressed and used for fuel.

The long ends of the tails of cattle are sold to mattress makers.

The horns and hoofs are carefully preserved and sold to the manufacturers of combs, buttons, etc.

Many of the large white hoofs go to China, where they are made into jewelry.

All of the blood is carefully preserved, coagulated by cooking with steam, then pressed and dried and sold to fertilizer manufacturers.

All of the scrap from rendering operations is carefully preserved and dried and sold for fertilizers.

Bones are dried, and either ground into bone meal or used for the manufacture of bone charcoal, which is afterwards utilized for refining sugar, and in some other refining processes.

The foreign demand for American cattle since the German and French embargoes went into effect has been small, and should the Venezuela question reach the shoulder-arms stage it would undoubtedly fall almost to the disappearing point, because Great Britain is practically the only customer we have at present. Even her statesmen are being deluged with deputations and petitions from those who represent the feeding classes to adopt protective measures against the competition of American cattle.

A French stockman who recently visited Chicago expressed the private opinion that American cattle would not have so much "Texas fever,"

etc., if American exporters were content to send over only moderate numbers instead of keeping the markets swamped and in such bad shape that French feeders could not make any money.

In writing to an acquaintance at the yards Mr. Rollin, of Paris, who is one of the best posted men in France on the live stock situation, said: "I think there is no chance at all of France admitting cattle from the United States next year, for only a few days ago the Minister of Agriculture was again questioned at the Chamber of Deputies regarding the measures he intended to take in order to prevent the spread of disease in France from cattle or sheep imported from Canada or Argentine. He said that he had given orders to the inspectors to be more and more severe in examining cattle on arrival, and if some cases of disease were signalized to him he would not hesitate to stop importations. As to the supply of cattle in France the loss caused by the drought in 1893 is nearly filled up. Only the supply of sheep is short and in that line there is a margin for importers.

However, our cattle are in good demand in England, and it would be a great hardship to the consuming classes of the British Isles to have American cattle barred. There has recently been a revival in live cattle exporting, and one of Chicago's largest packers, Mr. Armour, started the new year by entering into this trade on a liberal scale. Of course there is strong competition in store for us from Argentine, Brazil and the Antipodes, but the competition as yet is almost entirely in bulk, and prime corn-fed beeves are amply able to hold their own even alongside of the choice English cattle.

Secretary's report was accepted and put on file.

Mr. John G. Springer moved that a committee of three be appointed to draft by-laws. Whereupon, Mr. Springer, W. H. Fulkerson and D. W. Smith were appointed that committee.

A. C. Halliwell, live stock editor *Daily Drovers' Journal*, Chicago, forwarded a paper on "Home and Foreign Demand for Beef Products," which was read and placed on file. The same was discussed by several parties.

Mr. Wood, of Morgan county, gave a paper, which was read, as follows:

As I have discovered a new process of feeding cattle, I take the pleasure of introducing it to the farmers of Sangamon county. I live just over the line in Morgan, where I am now feeding my three bunch of ninety head with 150 hogs following. My new process is to steep their feed from one feeding time to the other with sufficient heat to double it in bulk at feeding time, and heat the water for them to drink with the same fire. I have a diagram of my arrangement with me, be glad to show it to anyone that is interested. I do not believe in cooking feed the common way, as the strength is lost by evaporating in the steam, so we have nothing but a bulky substance left that is sloppy and will produce soft gain.

As to my results I will give you the result of two different bunches, one fed in summer and one in winter. The first bunch I bought of William Woods, Jacksonville, Ill. He bought them in Nebraska, paid 2 cents, so he told me afterwards, sold them to me for 3 cents September 20, 1894, weighed 900 pounds. I commenced to feed them the 1st of October. 1st of November I dehorned them, which should have been done before feeding, but the flies were too bad. I sold them in my lots at home the 1st of April, 1895, for 6 cents. They weighed 1,379 pounds; gained 479 pounds in the six months I fed them. I fed 70 head, with 100 hogs following, 23 bushels of dry corn, which made 46 bushels when steeped; made all they would eat per day, with enough left to feed some to the hogs. The hogs weighed 100 pounds when I began feeding. I sold them for 5 cents, averaging 250 pounds.

The second bunch I bought of George and Henry Wright, Jacksonville, the 15th of May, 1895; they were four year old "quinine steers" as the western men call them, in other words they were through cuts, very wild, and never had a bite of corn in their lives. It required 30 days to teach them how to eat corn—I don't believe I put 10 pounds on them the first 30 days. I found if I let them have grass they would never eat corn, any way I would give it to them, so I put them in a lot and sprinkled a little feed over some hay until they would eat. When they did commence to eat, I never had cattle do better. I got them to eating by the 15th of June; they weighed 1000 pounds then. I fed them until the 15th of October. Shipped them to Stafford Bros., Chicago; they averaged in Chicago 1300 pounds, sold at \$4.10.

I kept these cattle in a dry lot from the 15th of July until shipped; gave them 8 bushel of dry corn, 16 when steeped, 4½ bundles of sheaf oats per day 30 head. I fed them through fly time to see what I could do the year around.

The 90 head I am now feeding are eating 25 bushels of dry corn, 50 bushels when steeped, ½ gallon salt per day with 6 shocks of fodder for roughness. I feed the hogs 5 bushels or 10 bushels steeped feed extra. I am also feeding the cattle one pint of oil meal to each steer mixed in the feed just before feeding per day.

I am well satisfied with the results I am getting. I believe they are gaining 3 pounds a day. Hogs are doing well. I give them the ashes mixed with salt from the furnace. I would not be without the ashes for the price of the fuel. I shell 1000 bushels at a time, and the cobs with 10 bushels of coal doubles it in bulk, and heats the water for cattle to drink.

I invite all parties that are not getting 2½ to 3 pounds gain a day on their cattle per head for 1-3 bushel of corn with nothing but fodder for roughness to come to see me. I would like to show them how I do it.

Thomas McFarlane, of Harvey, Ill., who was down for an address on "Beef Cattle," could not be present, but wrote the following letter:

HARVEY, ILL., Dec. 13, 1896.

J. H. Pickrell, Springfield, Ill.

DEAR SIR:—The first leisure time I have had for a month past, I used last night in re-reading your two letters of recent date about the Cattle Breeders' meeting of January 8th, next. So a Short-Horn man, Mr. Prather, has the Presidency, another Short-Horn man, Mr. Pickrell, has the Secretaryship, and a Hereford man has the Treasurership of this association, and now you propose me as the "Beef Cattle" man. Besides, my name has already been printed in the programme and I am to interpose no "Buts" or "Ifs," but like a docile, hornless animal, submit. Well, this is cool, even for an early winter. Even a little flattery to the hornless Secretary fails to cover the bitterness of this fall. The idea, too, of me appearing on the stage, among the Doctors of the breeding ring, and on short notice, shooting off my mouth upon what I (don't) know about beef cattle. This thing looks like a Short-Horn conspiracy, or a "walk into my parlor Miss Fly," by a big spider. I know a lot about boom towns, shoddy philanthropists, pious frauds, etc., but why, in view of a prospective shortage of cattle, the Christmas market is off, at the present time, I know not. Nor have I information, instruction, advice or help of an available character, to give the cattle breeder or feeder. Sometimes I write for writing's sake, but seldom talk for talking's sake. So you must either print another programme, with my name off, or do me the justice to say to the meeting that my name went on without my consent. There is one thought that comes to me "o'er and o'er" in view of the prospective "Packers Loan Co.," which is, that now the field, which is the world, is to be fully covered.

The Beef Combine fixes the purchase price, slaughters the cattle, controls the sale of beef, and now, out of pure benevolence, is going to provide funds to help the farmer and feeder over the hard places, making the borrower servant to the lender. thus covering everything in sight, so that between the "railroad" and the "packer" there is likely to be but a small modicum for the farmer.

This last sentence is "my paper upon Beef Cattle." Is it not suggestive enough?

Cordially yours,

THOS. MCFARLANE.

Frank Gaston, Normal, Ill., presented the following paper on "Dairy Cattle," which provoked a lively discussion, which was engaged in by Messrs. V. E. Fuller, John Stewart and J. N. Pearson:

Among the different herds of dairy cattle used in this country, none are so popular as the Channel Island cattle. Still several others have merit in them and each has its friends. Perhaps any breed can be made to produce milk, butter and cheese profitably, but our aim is to assist in ascertaining which breed shows the most desirable qualities.

Brown Swiss is an old breed, having been known for several hundred years in Europe, but they are comparatively new in this country and so few in number that very few dairymen have become acquainted with them. They are large, mouse color, very uniform in appearance, but appear to be rather beefy for a typical dairy animal, and more dairy tests will be necessary to satisfy us that they should be classed with the dairy cattle of this country.

French or Normandy cattle are large, rough-boned and not attractive in appearance, yet fair milkers, but not enough known to be considered among our dairy cattle.

Devons used to be among our best dairy cattle, but are so scattering as to be hardly considered in this connection, still a few of their grades have been known to be very excellent milkers.

Ayreshires, next to the Channel Island cattle, are perhaps the nearest the ideal dairy animal, and while not fancy in color or appearance, are very satisfactory in the milk dairy, while as butter makers their records do not as yet show them able to compete with the Jerseys and Guernseys. Their crosses with the other dairy breeds have proven good; especially is that true of the Jersey Ayreshire cross.

Holsteins, one of the oldest dairy breed, are large, loose-built and very heavy feeders, and under certain conditions are, probably, our largest milkers. Still we believe that the standard of quality demanded by the milk and cream consumers of the world is a little too high to allow Holsteins to compete with the smaller dairy breeds, where quality and cost of production are considered. Their grades are not satisfactory, either as dairy or beef animals.

Shorthorns were at one time one of our best dairy breeds, but having been bred so long and so well for beef production, that in the great World's Fair test it was proven beyond a doubt that as their greatest profit proved to be in their gain from a beef standpoint, their breeders have succeeded in their aims. Still the Shorthorns did so well as milkers that their reputation is much better to-day than if they had not entered the dairy test at the World's Fair. And this test further proved that we cannot attain the best results in the dairy without using our most especially developed animals for this purpose.

Guernseys, most like the Jerseys, but at the World's Fair test did not prove the claim of their owner that they were larger milkers than the Jerseys, for they fell behind all through the test. Still, for quantity and quality of cream, butter and cheese they are the closest competition of the Jersey, and most like them in appearance, form and characteristics.

Jerseys—This we claim is the nearest a perfect dairy breed in existence at the present time. That the Jersey gave more milk than did the Guernseys or Shorthorns at the great World's Fair test, was a surprise to their opponents, but not to their owners, for they knew better as to her capacity and habits than did anyone else. Again, more cows of this breed have made 14 pounds or more butter in seven days than have the cows of any other breed, and also more cows of this breed have made 800 to 1,000 pounds of butter per year than have those of any other breed. And, also, that whole herds, (many of them), have produced an average of 300 to 400 pounds of butter per cow annually. And so far as known, no breed can show as many familiar with so many grand butter makers as can the Jerseys. In order to show how uniform Jerseys show the ability to make butter, let us look at a few of the leading families. Stokes Pogis 3d has 28 daughters and many grand-daughters in the 14-pound list. His full brother, Stokes Pogis 5th, has 22 daughters and 39 grand-daughters in the list. Then the two half-brothers, Idor Stokes Pogis, with 23 daughters and many grand-daughters, and Ida's Rioter, with 21 daughters and many grand-daughters. And their famous full brother in blood, Exile of St. Lambert, with 49 daughters and nearly as many grand-daughters in the list.

What breed of cattle can show five bulls of one family with a total of 143 daughters in the 14-pound list.

Then we have the Coomassin family, headed by Tormentor, with 34 daughters and 47 grand-daughters in the list. Next Pedro, with 28 daughters and several others of his family with quite a number in the list. Then comes Combination, with 25 in the list, and many grand-daughters and several great grand-daughters also in the list. Then we have Old Oowan, who made 22 pounds of butter in seven days, and has 6 daughters, also in the 14-pound list. Landseen Fancy, 29 pounds, with 4 daughters in the list. Then we find Old Marjoran, who made 16 pounds in seven days, and her two daughters in the list, has also over 60 grand-daughters in the list.

And we might go on for hours enumerating the merits of this grand dairy breed, but since nearly every farmer in the country knows that Jerseys beat all the others for butter, we need not take more of your time now, but I think at least most of you will agree that from the evidence before us, we are safe in saying that no other breed has done so much to prove its right to the title of "Butter Queen" as has the Jersey.

Mr. V. E. Fuller, who had charge of the Jerseys in the World's Fair test, sums up the result in the following statement:

Taking each separate test and taking all of them in the aggregate, the results conclusively show that the Jerseys—

1. Gave more milk.
2. Made more butter.
3. Made more cheese.
4. Gave more solids other than butter fat.
5. Required less milk to make a pound of cheese.
6. Required less milk to make a pound of butter.
7. Produced a pound of butter at less cost.
8. Made cheese of a higher quality.
9. Made butter of a higher quality.
10. Demonstrated their ability to profitably assimilate a greater quantity of feed and return a net increased profit.

The tests prove these to be facts, and in proving them give the stamp of publicity and authenticity to the Jersey cow as the greatest dairy cow in all essentials that the world has ever produced.

Col. W. H. Fulkerson, Jerseyville, Ill., being present, gave an interesting address on the "Market; Present and Prospective, for Pure Bred

Cattle for Breeding Purposes." (The Association having no funds on hand, failed to have a stenographer report the same).

The committee on by-laws reported as follows:

BY-LAWS.

1. This Association shall be known as the Illinois Cattle Breeders' Association.
2. The purpose of the Association shall be for the betterment of the cattle industry in the State of Illinois.
3. The members of the Association shall be reputable citizens of the State of Illinois who are interested in the cattle industry.
4. The officers of the Association shall be a President, a Vice-President, a Secretary, a Treasurer, and an Executive Committee consisting of seven members, including the President, Vice-President, Secretary and Treasurer.
5. That the membership fee for this Association shall be \$1.00.
6. That the annual dues of the Association for each member shall be \$1.00.
7. That the Secretary shall cause to be published, from year to year, and in the *interim* when it is ordered, the proceedings of the Association for distribution.

The by-laws were approved.

The following named gentlemen enrolled as members: J. F. Prather, Williamsville, Ill.; C. B. Dustin, Summer Hill, Ill.; J. M. Pearson, Godfrey, Ill.; Frank Gaston, Normal, Ill.; J. G. Springer, D. W. Smith, J. H. Pickrell, Springfield, Ill.; W. H. Fulkerson, J. R. Fulkerson, Jerseyville, Ill.; A. P. Grout, Winchester, Ill.; William Skene, Derinda Center, Ill.

The officers elected for the ensuing year were:

President, A. P. Grout, Winchester, Ill.; Vice-President, J. F. Prather, Williamsville, Ill.; Secretary, J. H. Pickrell, Springfield, Ill.; Treasurer, Thomas Clark, Beecher, Ill.

Executive Committee—W. H. Fulkerson, Jerseyville, Ill.; N. M. Lodge, Monticello, Ill.; T. C. Ponting, Moweaqua, Ill., in addition to the four above named officers.

A letter was received from the National Dairy Union, requesting that delegates be appointed to meet with the National Dairy Union, Chicago, the 14th of January.

J. M. Pearson, Godfrey; John Stewart, Elburn, and Frank Gaston, Normal, were appointed as delegates.

THE ILLINOIS SHEEP-BREEDERS' ASSOCIATION.

TUESDAY MORNING, JANUARY 7, 1896.

The Association met at 10 o'clock a. m., and was called to order by the President, R. M. Bell, of Decatur.

The President addressed the Association as follows:

Gentlemen of the Illinois Sheep-Breeders' Association: We have come together to form friendships, sustain each other and work together in a common cause. What is now principally needed by the Association is more members and money to work with, and they should all act together as a unit on questions pertaining to the sheep industry in this country at this time.

We are passing smoothly and safely into the new era mentioned by me a year ago, which I then ventured to name the mutton and wool period of sheep-raising in this country.

You will notice that I use the word passing, for as yet there is much to learn about the new systems and new methods before we are firmly established. But this perfected sheep industry is opening up beautifully to the people who think, and the change is being gradually accepted. The problems are being solved, the lessons are being learned, and the farmers are pleased with the results. The people of Illinois are as much interested in progressive sheep husbandry as anybody, but the farmers are very much discouraged and will have to wake up to the opportunities and possibilities that surround them.

To promote this end, I would suggest the forming of local organizations in every neighborhood where only a few flocks are kept. At such meetings there can be an interchange of thought and discussions of subjects both of general and local interest to the farmers. The State of Illinois has much to be proud of along the lines of growing sheep. The men of Illinois have always been prominent as workers for the benefit of wool-growing, and more latterly for mutton-raising.

Nearly every known breed of agricultural sheep have been and are successfully and profitably kept by our farmers. I want to say that there are as good breeders, as good feeders, as progressive sheep men in this State as any I know of in the United States. I want to say farther, that there are men among us who have stood at the front and done valuable work and won honors that have not been accorded them. Some of the old workers are here to-day; and I am proud to say there are younger men here who are as progressive, as practical and as skillful, upon whom must come the task of redeeming the sheep industry of the State along modern lines.

What are we here for?

This is not a political convention of sheep-raisers. We are here as friends in a common cause; to renew old friendships and strengthen the ties of other years. We are here to get acquainted and learn to like one another and learn to work in harmony in a common cause. If we succeed in all this we will increase the usefulness of our Association; if we fail in this we had better have stayed at home. We are here to discuss the questions that will be useful to the country; to impart what we know and gather information for ourselves and offer suggestions that perhaps may be useful to each other.

In all discussions here I would suggest that each one present be perfectly free to talk in his own way, and that discussions be as nearly as possible in a conversational manner, so all will feel easy.

Since our last meeting the sheep business has gained in general interest all over the country. To be sure, the rush of sheep to the central markets has kept up, but this may be accounted for, at least in part, to raise money to pay pressing bills. The prices of sheep have been comparatively well maintained during the entire year, and this should be taken as hopeful indications of the future. It is evident that sheep values have touched bottom, and sheep-masters are looking up-hill expecting good things to come their way. As we see it, the tendency is toward a completed sheep husbandry, based on mutton and wool, better, cleaner farming, to which sheep are an essential factor. The day is breaking, the clouds are passing; much foolishness has been discovered, has been rebuked and relegated to the past. In short, gentlemen, we are here to learn and to encourage one another.

What we need:

First—We need a working membership and plenty of money.

Second—We need a closer fellowship and unity of thought and action

Without these no effective work can be done. Without these we need not look for benefits to the sheep industry of the country. Heretofore, sheep people have stood alone independently of each other, though engaged in the same work.

An organization is useless unless it brings coöperation, which means systematic pulling together and in the same direction.

Not alone sheep breeders, sheep farmers, register associations, but we must have the national government, state legislation, county aid, and all backed up by the boards of trade, exchanges, stock yards and all agricultural boards, colleges and experiment stations, if we are to attain the highest good.

In looking about for encouragements in this darkest day for our industry, I can see so many helps that never came to us during former depressions in my day. You, who passed through the trials after the war of the rebellion, will remember there were no journals devoted to sheep-raising, as now. We had no sheep literature, and for a long time no paper had a kindly word for sheep and wool.

I very much regret to say to you, the Illinois Sheep-Breeders' Association has not been able to make a very brilliant record. It has not made itself felt in a practical way; it has not gotten close enough to the people; the sheep-raisers have not seen it to their interest to belong to it. We must make it useful, and the people will pay their money, become members and come here once or even twice a year to compare notes and inspire each other with fresh hope and courage.

In conclusion, let me say that we no longer live in the past, but must become active in what concerns us now, and be willing to stand firm and together for the future and the common good. There is no time for littleness or selfishness. We must rise above all prejudices, abandon the traditions of the past, lose all personality in forwarding the mutton and wool industry of our grand State.

We must make our meetings so good that no one can afford to stay away from them.

We must put our money into this Association; that is what counts, that is what makes it ours—an individual affair to each of us.

But I am consuming your time. There are present with us to-day distinguished, practical gentlemen who will address you on subjects of vital interest in the present and future of sheep husbandry, not alone in Illinois, but of the United States.

I congratulate you upon your opportunities to-day of furthering the cause so near our hearts, and which stand, and must forever stand, for the welfare of our people.

At the close of the address, the President called for the reading of the report of the Secretary.

The Secretary, John G. Springer, of Springfield, then read his report, as follows:

SECRETARY'S REPORT.

The Illinois Sheep Breeders' Association met in the Senate Judiciary Committee Room, State Capitol, Springfield, Ill., January 23, 1894, President C. I. Pulliam presiding.

The minutes for the annual meetings of 1892 and 1893 were read and approved.

The financial report of the Treasurer showing a deficit of \$7.75 was read and filed as correct.

Mr. J. H. Pickrell explained the contemplated idea of fully organizing horse, cattle, sheep, swine and poultry associations, and that these associations, unite in one general Live Stock Association of Illinois, and that the President and Secretary of each minor Association be the executive committee of the general association.

Mr. J. H. Pickrell was, on motion, directed to cast the vote of the Association for the re-election of its present officers. Mr. Pulliam stated that he was expecting to leave the State, and therefore requested that another be named for the office of President.

Whereupon the name of R. M. Bell was substituted for that of Mr. C. I. Pulliam, and the vote of the Association was cast for the following officers for the ensuing year:

President, R. M. Bell, Decatur, Ill.

Vice-President, W. T. Potts, Jacksonville.

Secretary and Treasurer, Jno. G. Springer, Springfield.

Executive Committee—Hon. David Gore, Carlinville; R. J. Stone, Stonington; S. E. Prather, Springfield; Harry Cass, Buffalo Hart.

The following resolution was adopted:

Resolved, That this Association favors the formation of the Illinois Live Stock Breeders' Association, and that the President and Secretary are hereby instructed to assist in its organization.

A paper on the Illinois Sheep Industry was read by Mr. Jno. G. Springer, and after discussion upon it as well as general sheep interests, the meeting adjourned to meet at the call of the President.

I have further to report that in accordance with resolutions adopted at our last meeting, in regard to our union with similar associations representing the horse, cattle, swine and poultry interests of the State, for the purpose of organizing an Illinois Live Stock Breeders' Association. Such an organization was effected, and a committee was appointed for the purpose of securing whatever legislation might be deemed necessary for the advancement of the live stock interests.

This committee decided to ask for an annual appropriation of \$1000, to be used exclusively for the printing and binding of the proceedings of the several associations; all other expenses to be paid by these several organizations. The request for this aid from the State was denied by our law makers, the House Committee on appropriations in fact, because the bill asking for it was by them refused.

In view of the fact that this same committee did recommend, and there was allowed \$500 for the same purpose to the Illinois Bee Keepers' Association, that does not represent as great an interest as even the smallest of the Live Stock Breeders' Associations, it is evident that the live stock industry was considered by the committee as unworthy of any such recognition by the State.

In these progressive times no industry is carried on with the greatest success without an organization that has its interests in charge; and this organization must be supported by those who expect to realize the benefits therefrom.

The value of an organization like ours largely consists in the addresses, papers and discussions heard at the meetings. To secure the benefits of these it is absolutely necessary that the publication of its proceedings be made and largely distributed. Heretofore our Association has failed to realize all the profits of organization, because for lack of funds the publication of our proceedings was impossible.

There seems to be no doubt that if our proceedings can be published so that those unable to be with us will readily see what we are doing, that the matter we publish is of value to them, and that we are working for their interests, they will aid us in keeping on with the work. When we are in the position to do the good that our Association ought to do, thousands of dollars of more money will be invested in this State in Sheep.

The people must be made to realize that in the sheep they have an animal that more than any other has two sources for revenue, the mutton and the wool: an animal that will supply them with the most health-

ful of domestic meats, and in quantity that permits its usage while fresh, and without spoiling, in summer as well as in winter; an animal that requires less care than any other of our domestic live stock, not excepting poultry; an animal that benefits the farm more largely than any other as a weed and brush destroyer and as a distributor of the best of fertilizing droppings; an animal that is less liable to disease than swine or poultry; an animal that less seldom than any other leaves the owner in debt; an animal that should be on every farm as well as poultry, swine, cattle and horses.

To create a demand for them, breeders must use all legitimate means for informing the farmers as to their usefulness and the profit to be found in raising them. In no better way can this be done than through our Association, if we place ourselves in condition to let the proceedings of our meetings be more generally known.

TREASURER'S REPORT.

ILLINOIS SHEEP BREEDERS' ASSOCIATION.

ANNUAL MEETING, JANUARY 7, 1892.

Received from Charles F. Mills, membership fee.....		\$1 00
Due the Treasurer from last report.....	\$7 75	
Due the Treasurer for printing program circulars.....	75	
Due the Treasurer for postage.....	3 70	
Balance due the Treasurer.....		11 20
	<hr/> \$12 20	<hr/> \$12 20

JOHN G. SPRINGER, *Treasurer.*

The President: What is the pleasure of the Association with regard to the report just read? To adopt or reject it?

J. H. Pickrell, of Springfield: Mr. President, I belong to the Cattle Association, and I do not know whether I am a member of this Association or not, but if I am, I move that the report be received and placed on file.

The Secretary: Mr. President, we consider all that are assembled here members of this association, at present, at least.

The motion was passed, and the report ordered placed on file.

The President: I have the pleasure now of introducing to the Association a gentleman who has a record in sheep and wool raising second to no man in the United States. He is an old war horse for activity in war matters in the sixties, but he is not too old to jump, or so lazy as to be left in the back pasture of Chicago, where he lives. I need not make known to you the Honorable A. M. Garland, of Chicago, who will now read to you an address on "Progressive Merino Sheep Husbandry."

A. M. Garland, of Chicago: Mr. President and gentlemen of the Association, I join you in your disappointment over the absence of Mr. Burch, who it seems had promised us a paper on this occasion that we know would have been both interesting and instructive.

When my subject was assigned to me as a topic of discussion, I very much doubt if the gentlemen responsible for that assignment had any definite idea of the direction the discussion was to take, or, if they had, they very carefully withheld from me the benefit of any suggestion.

Mr. Garland then read the following paper:

PROGRESSIVE MERINO SHEEP HUSBANDRY.

When "Progressive Merino Sheep Husbandry" was assigned as a topic for discussion, I seriously doubt if the responsible authorities had any definite idea of how it could best be handled. Certainly if they had such a conception they withheld from me the benefit of any suggestion in that behalf. At the outset one is confronted with the question: Is there now existing in the United States any feature of Merino sheep husbandry that is entitled to be called progressive?

If one should form an opinion from the complaints heard in every center where Merino sheep are owned in any considerable numbers, or from reports of disasters that have overtaken many of those owners who have faithfully battled against adverse conditions, or from the long-continued, relentless lowering of wool prices—if from these an opinion may be reached, then, surely, progressive is not the proper adjective to apply to our Merino interests.

Certainly the condition is unique in so far as it relates to those who may be called wool-growers. For the first time in the life-time of any of them they are now exposed to world-wide competition, freed from the influence of a tariff. In the year 1895 good Merino wools sold in our principal markets for the lowest prices ever reached in the United States.

Little wonder, then, that discouragement has taken hold upon so many. Little wonder that our city markets are surfeited with half-fattened sheep, and that the number slaughtered has reached such colossal figures, and that census returns show a reduction equivalent to 10 per cent of the aggregate of all the sheep in the country. With such facts staring us in the face we are likely to be profited by looking for the why and the wherefore of such a condition; and, better still, then applying ourselves to the task of finding the proper avenue for relief.

Merino sheep-breeders are proverbially conservative. When, ninety years ago, sheep were brought into this country from Spain, wool was the only consideration; and well it might be, for not long after their introduction fine wool sold in the United States in the neighborhood of \$1 a pound. Their bodies were so small and ill-shaped, and other kinds of meat then so cheap, that the idea of making a mutton carcass under a Merino pelt seems not to have entered into the calculations of any one. And along that line breeders seemed to have worked for much of the time since. Fleeces have been improved in weight and in uniformity, and to a less degree in fineness. In this respect Merino sheep husbandry has been progressive—achieving advancement that reflects honor upon those who have been foremost in the work. But unfortunately the possibilities of carcass development were not given equal consideration. Heavy fleeces from small bodies seem to have been preferred to heavy fleeces from larger bodies, with the result that the orthodox Merino must have a pelt that will wrinkle and fold over every part of the body like a giant's coat on a pigmy.

This is the predicament in which breeders were caught some thirty years ago, when the price of fine wools began to recede the world over; and too many of them have failed to awaken to the fact that all the possibilities within their reach have not yet been realized. Along this line conservatism rather than progress has characterized fine wool producers. The result was small carcasses—oftener under 100 lbs. than over that weight in matured animals—at a period when flock-owners were confronted by the fact that their business could no longer be made profitable by wool-growing alone. Here again their characteristic conservatism became prominent. Many of them would not see in the steadily declining values of wools and the increasing demand for meat the necessity for such a change of policy as to get the fullest benefits from these new commercial conditions, and now, when they are unable to make wool-growing profitable, they are forced to accept the price of second-rate mutton for such carcasses as they can get into market.

So much for the past. What is the existing condition of the industry? The observer is at once impressed by the air of depression prevailing among Merino flock-owners. Many of them seem discouraged and threaten to give up—unable to get a profit out of the business. With these I can have no quarrel for the reason that if, with such experience as they have had and after surveying the situation, they are still undecided to become disciples of a more progressive policy they will be better off without sheep. But to those who are still disposed to hold on I feel inclined to offer a few suggestions with the hope that some advantage may result.

Progressive Merino husbandry does not necessarily imply that all old practices shall be discarded and a complete change inaugurated. Rather let us accept the injunction to "hold fast that which is good," and discontinue only what experience and the newer conditions have shown to be unprofitable. There are lines along which Merino breeders have worked to which they must continue to adhere—care in breeding, keeping in the lines of good blood and vigorous constitution, so as to insure transmission of desirable qualities from parents to offspring. Improvement of fleeces in weight and quality must continue to be a prime consideration, for I am not among those who conclude that wool-growing is to be abandoned, no matter how low prices may go.

I believe it possible to improve the Merino sheep that its fleece will pay the expense of its keeping even at the existing low price for wool. Steady improvement is shown by the history of past years, and there is no more evidence to-day that the limit of improvement has been reached than was to be found twenty-five years ago. Just how this improvement can be most certainly and speedily attained can better be discussed by others than by me. I will, however, offer a few suggestions, with the view to calling out discussion by those who are competent to advise.

In the first place no fully-grown ewe should be bred that does not yield a fleece weighing seven pounds or over of good, merchantable wool. Let all others be fattened and sold as soon as may be. They may be fattened so as to make mutton that can be sold, but they are below the standard for progressive wool-growing. I would make an equally exacting standard for rams, though in their case basing the requirements more upon ability to yield actual wool rather than fleeces inordinately weighted with grease and gum. The day seems to have gone by for wasting food and physical energy in producing three or four pounds of gum and grease with a single pound of wool. Of course a certain quantity of these is essential to the growth and preservation of fine wools, but let the requisite minimum be ascertained and adhered to, and neither fleece nor carcass be depleted to secure an additional ounce of that which will prove a detriment to both grower and manufacturer. This means less freight and less commission when selling is done at the grower's expense.

If all the money that has gone to railroads for hauling unnecessary grease and dirt between the Rocky Mountains and the Atlantic could now be divided among the men who paid it the sum would go far toward relieving the depression under which the wool-growing industry is now laboring. On an average Western wool-growers have paid freight on about three pounds for every pound of wool sold by them. This they should stop, so far as change is possible without interfering with the healthy growth of wool.

In this connection it seems well to consider the advisability of locating at suitable points establishments in which wools from convenient neighborhoods can be collected, assorted and cleansed before sale or shipment. There are good reasons for the belief that buyers would soon be found ready to take wools thus prepared, as they could be more quickly used and prove a saving in labor and expense now found necessary.

A serious mistake made by many is measuring the possibilities of Merino husbandry by an absolute rather than an ideal standard. Animals

and practices that would be relied on for profitable results twenty-five years ago are now of little value to the man who invests money with a view to wool-growing.

Railroads and steamships for transportation and electricity for communication have put a widely different aspect upon the business of producing mutton and wool for markets near and far. The manufacturer who now wants an invoice of fine wools has the world's markets closer by his factory than was the wool supply of the United States to his predecessors. The Boston agent now steps to the telegraph and orders from Australia, or South America, or Cape of Good Hope a cargo of fine wool, which can be laid down in his warehouse in less time than was formerly required for getting our territory wools into the Boston market. What makes this situation still more significant is the fact that freight charges from these distant markets are now less than from most railroad stations west of the Missouri river.

And there is no use for us to deceive ourselves as to the character of the wools thus brought to our doors. Much of these foreign fine wools are better and more profitable for the manufacturer than are the average of fine wools of domestic production. This does not mean that we cannot or do not produce some wools as fine and long and strong as Australia produces; but it is a fact that this is not the case with the large majority of the wools grown in this country. Evidence of this may be found in the fact that manufacturers will pay more for a cleansed pound of Australian wools than for domestic wools. This is not done from sentimental considerations, but for purely business reasons. Merino breeders in this country can improve the character and selling value of their wools; and it would be greatly to their advantage if this were done.

And lastly, but by no means of least importance, progressive husbandry demands that breeders must get away from the idea that the Merino is not a mutton-producing animal as well as a wool producer. We have too long heard the changes rung on the distinguishing line between mutton types and wool-producing types of sheep. These must be combined, and the sooner this is done the sooner are we likely to hear the last of this distinction. Webster defines mutton as the meat of the sheep, raw or cooked. This means flesh of the Merino as well as of the long-wool or the Down; and there is no insurmountable obstacle in the way of the Merino taking rank with the best of the other types in meeting the growing requirements of the mutton markets. I am fully aware of the obstacles to be overcome—foremost among them that of popular prejudice. It is not uncommon to hear the remark that Merino mutton is not fit to eat—which is measurably true of much that is thrown upon the market whenever the owners of large flocks find themselves crowded into the shadows of a depressed wool market. During the past two years many millions of very inferior carcasses, wholly or largely of Merino blood, have been crowded into the market in a half-fattened condition. It is from such as these that the prejudice against Merino meat gets its encouragement. For the men who force such animals into market I have no apology to offer; and I know nothing that can be said in favor of the animals beyond the fact that they would have gotten into much better condition if they had been given the chance.

It requires breeding as well as feeding to make good mutton, and breeding for mutton is just what Merino owners as a class have sadly neglected. The popular type of Merino has the pelt of a good-sized sheep without the carcass to fill it. And here is where progressive Merino husbandry is to take its most important forward step. Larger and better developed bodies must be created without impairing existing merits of fleece. Inclination toward earlier development must be encouraged without impairing the proverbial Merino hardiness and ability to accommodate itself to environments.

I realize that this policy of mutton development may in some measure unfit the Merino for herding and other hardships of pastoral husbandry. But if, at the same time, sheep ranchmen are forced to secure their

flocks by fences, instead of employing so many men and dogs as are now necessary, they are likely to be gainers by the change. Those foreign-flocks whose wool is the strongest competitor in our markets are strangers to the system of herding as practiced on our frontier; and this because the men who have made Australian wool-growing such a marvelous success—both as to character of wool and economy of its production—have tried both systems and have found fencing in every way preferable to herding.

In my opinion every man who owns or leases a sheep range would find it economy to put into wire fences a large part of the money now paid for herding. Herding kills more grass and cripples and stunts more sheep than the majority of men are prepared to concede, while not even the most thrifty animal in the flock does so well as it would do if allowed free run inside an ample inclosure.

Of course there are many localities where fencing is out of the question—as on public lands and on ranges so sparsely grassed as to require several acres for a sheep. So long as flocks are retained under these conditions all possible economies and ingenuities will be found necessary to secure a profit. The margin between loss and gain is likely to be so narrow that owners may deem themselves fortunate if not found on the shady side of the line when the year's work is summed up.

I am not of those who think that the knell of the Merino was sounded when the tariff on foreign wools was repealed. Always holding that an ample tariff is demanded by justice and is necessary to the progress and stability of wool-growing in the United States, I have never believed that we would cease to grow wool in the absence of such a tariff.

I have here attempted to suggest some of the ways in which wool production under the most adverse conditions can be maintained. It can only be done by securing and retaining the highest possibilities of improvement in the direction of profit and adherence to the determination not to be satisfied with anything short of such standard.

On the properly developed sheep a pound of mutton can be grown as cheaply as a pound of beef on the average steer, and it will sell for as many cents. If the cattle-grower can fatten his steer with some profit I believe the sheep-grower can do as well, and have in his favor the advantages of one or more fleeces while bringing his animals to maturity. But it cannot be done with scrub animals, no matter how fashionable their breeding, how high sounding their pedigrees. It can be done only with sheep growing the most desirable fleeces on well-developed and rapidly-maturing carcasses. And this is true of the entire flock; they must all be good. The history of those lean and valueless animals of ancient Egypt that devoured their well-fattened contemporaries is not the only instance of disaster attending the mixing of worthless and superior stock. The same thing has been repeated in Merino flocks, so far as profits are concerned, ever since sheep husbandry has been pursued for profit.

If Merino husbandry is to progress and become as permanently profitable as any other well-conducted business, the work of eliminating inferior animals cannot too soon begin. Let them go into market just as soon as they can be put into reasonable condition. They may not make very good mutton, but they are better for that than anything else. They are to progressive husbandry of the future what the stage-coach of our boyhood days would be to the transportation demands of the present time. They may have had a place in the past, but to-day and hereafter they are but clogs upon the wheels of progress and must be cast aside.

It has frequently been urged that there are not many farmers who might not make a small flock of sheep profitable. This I believe to be true, and as the fact becomes more generally recognized the tendency will be to increase both the number of the flocks and the number of sheep throughout the country. Heretofore when sheep husbandry has been referred to our minds have usually reverted to those partially set-

tled localities where flocks are made up of thousands. There will be less reason for this each year, as the logic of events is certain to diminish the extent of ranges and popularize the small flocks among farmers.

In this transition the Merino is destined to be an important factor. It offers an unrivaled base for crosses by larger types where such a course is found desirable. No other breed is so cosmopolitan. It will thrive where any other breed will get a living, and will live under privations where few others could exist. No other sheep will so certainly improve the fleeces of breeds with which they may be crossed, and under suitable conditions such crosses will in no wise detract from the merits of carcass.

With this hasty survey of the situation it may be concluded that a progressive Merino sheep husbandry is the only one that is likely to survive against the pressure of low prices and increasing competition. The flock owner who is not ready and determined to take a long stride in advance of the standards and policies that obtained in the past is already out of the race, and the sooner he comes to realize the fact the better. The procession of men who are to achieve success is now moving, and those who feel themselves unable to keep step with its quickening march will be left by the wayside.

The system that will hereafter succeed will necessarily omit some of the men and many of the practices of the past. The era of cheapening commodities is upon us, and sheep owners cannot escape the grind of its wheels. The inexorable demand for cheaper production of what the people are to eat and wear must be met, and I have faith that the response will reflect credit upon the intelligence and perseverance of Merino flock owners, and at the same time redound to the material prosperity of their country.

The paper of Mr. Garland was received with applause.

The Secretary: Mr. President, I am very sorry to say that I have a telegram from the editor of the *Sheep Breeder*, at Chicago, dated to-day and addressed to the chairman of this meeting, stating that he is unable to leave his family, and requesting a report of the matter to be sent to him as soon as possible. We of course regret very much that Mr. Burch cannot be here with his paper on "The Future of the Sheep Husbandry in This Country."

The President: As next on the program, we will now hear from Mr. F. D. Nunes, of Chatham, Ill., on the "Care of a Flock."

Mr. Nunes' paper was as follows:

THE CARE OF A FLOCK.

As you all know, the "Care of the Flock" has been assigned to me. I would that an abler person had my task, for I feel that properly presented it is a greater one than I, a humble shepherd, can perform.

In the first place you must have the range or pasture land upon which to tend your flock.

Second place, you must have the flock, and the flock must be so handled that it may yield a profit as well as pleasure to those engaged in the business. We will presume that you are now in possession of the range, pasture and flock. Now then the proper care.

First we have the breeding flock, mutton and wool are to be considered factors in the business, for I have never been able to make either wool or mutton alone pay me a compensation for their handling. It follows then that you must have the best mutton and wool sheep that can be had at a reasonable price to work on.

We'll say then that you start with the flock in the fall or beginning of winter, when the proper time for mating is at hand. The best time I find with me is the 20th day of November. By mating them at that time the lambs will commence to appear between the 10th and the 15th

of the following April, and that in our latitude (Central Illinois), I find the best time for them to come, for usually we then have a bite of grass for the ewes to nibble at, and grass seems to be a better diet for the sheep in nursing their young than anything else I know of.

Now comes the trying time for the shepherd, for if he expects to reap an abundant harvest of lambs, he must be continually, night and day, with his flock to see that nothing goes wrong with his ewes and lambs. If he is a careful shepherd he will note the twin lambs of each ewe and see that they are kept with their proper dam; otherwise he is liable to have much trouble, especially when they lose their dams. It is in the first week of their existence that they are liable to stray from the dam, so that if the shepherd is careless or negligent he may lose many a lamb in that way. I find that the shepherd who expects the best results must be on his watch and guard continually during the lambing months.

He must, too, watch carefully the green flies, for at this time they are liable to do much mischief to the ewes by blowing them, thereby creating the maggot, which, if not tended to in time, will destroy many of them.

We will say now that the lambing season is over, and your lambs are to be trimmed. I find that the best time for trimming lambs is when they are about two weeks old. Never by any means trim them when the weather is wet or sultry, for the flies at such times will give endless trouble and annoyance, and often great loss to your lamb flock. They should be trimmed when the weather is bright, clear, and if possible, the wind fresh and breezy from the northwest. I will not here enter into detail of how the lamb should be docked or trimmed, for it is supposed that anyone accustomed to sheep has that knowledge.

Our lambing season, trimming and docking are over; then comes the shearing. It is supposed that those who offer their services to shear sheep understand their business, but, to my sorrow, I have found that some shearers are worthless and will injure your sheep in a greater degree than their wages would come to, and when you find one of them shearing your flock you had better pay him off, show him the road and tell him to go. It will be money in your pocket if you start him before he kills any sheep for you.

I have found the best shearers to be rather kind and handle the sheep with care and kindness and turn them off in good shape. A good shearer will shear from sixty to eighty sheep in one day and do his work in a good manner.

The flock now being shorn, I take the ewes and lambs and put them separate from the mutton flock, and if there are many of them they are divided into small flocks. They do better in one, two, three hundred in each flock. I do not think more than three hundred ewes and their lambs do well in our pastures. This, of course, is considered for our small farms.

It would now be good time to see that the flock is free from lice or ticks, and if not, it is the time to dip them. There are quite a number of varieties of dips, any of which will answer the purpose for the extermination of the vermin. "So you pays your money and gets your choice."

Never by any means allow your flocks to go into winter quarters with countless ticks or lice, for if they do they will cause much distress and death to your flock and loss to yourself.

The question may be asked, When is the best time to dispose of your mutton or spare sheep? In my experiences in the past I have found that March, April or May has been the best time to dispose of mutton than any other in the year. So that if you should have lambs in good shape ready to go in March or April, you are likely to get the best price of the year. When I want to dispose of my yearlings in April, I usually feed them from six to ten weeks all they will eat of such feed that grows on the farm, usually shelled corn, corn fodder and hay; but the best results with me have been a mixture of ground corn, oats, bran and a little oat meal. Take these four seeds together and if you have a nice

blue grass lot that was'n't pastured to death the year before to turn your fattening lambs into in February and March, you do not make these lambs fat, then I miss my guess.

The question is and ever occurs, Does it pay? That alone depends on what you get for them.

The breeding flock must not any time be allowed to be too fat, for if they are, you cannot obtain the best results in lambs. Mind you it does not follow that you are to starve them, but rather keep them in a thrifty condition.

The best plan I have ever found to salt my flock was to get pine tar and pour it into a trough and then take the salt, say a bucketful, and a pint or a quart of sulphur and spread it over the tar, and mixing it thoroughly, allow your flock to have free access to it at all times, I believe that the sulphur, salt and tar is one of the best combinations to keep your flock healthy of anything I know of. And by the way, I think horses and cattle would be much benefitted by this combination.

You will find that I have not touched on the diseases that our flocks are subject to, especially what I call the black scours or sheep cholera. Not but what I have suffered pecuniary losses, for at least two or three times in my experience with sheep I have suffered heavily, and I wish that I knew a remedy for it; but as I am neither a horse or cow doctor, I will keep silent for fear of exhibiting my ignorance in regard to the nostrums prescribed by the "hoss" and cow doctor.

I have found by observation that the scours or sheep cholera always strike the lamb flock after a dry spell when the pastures have been turned dry, followed by rain, and the tender grass that makes its appearance seems to act upon them like a physic, causing many of them to pass in their checks, and leaving the poor shepherd in bad shape to pass his check at his bank, if he be fortunate to have a bank where he has had money to his credit.

Some attribute the scours in lambs to a fly, but the strangest thing is, if it is a fly, they would have the scours every year, for I believe that the fly is with the flock more or less to annoy them every year. And in my own experience with sheep I have suffered serious loss from the scours but three different times in the last seventeen years. If any one of our fellow shepherds has found a successful remedy for the black scours, they will confer a blessing by making it known, for truly if we stay in the business we must save all the lambs, in order to make a living and not an over-fat living either.

I must describe an occurrence that took place three years ago last fall in my neighborhood. I happened to be at the bank where a neighbor of mine happened in. He handed a sale bill to the cashier, and in reading it the cashier says, "Why John, are you going to sell your flock of sheep too?" John looked up and in a droll sort of a way he said "Yes." "Why" says the cashier, "they are the best paying property now." "That's true," says our brother shepherd, "but since Cleveland and the two houses of Congress are democrats, there seems to be too many democrats and dogs for the sheep to pay much in the future. So I believe I will just sell them and let them go." Little did I think at the time that the shepherds would suffer from the democratic legislation to the extent of the destruction of at least one-half of our living. I have suffered more by the democratic legislation in the last three years than I ever did by the destruction by dogs in the last twenty-five years. So you see our friend who sold out three years ago was much wiser than I gave him credit for.

And by the way. I also see in a stock journal that an enterprising gentleman from the Quaker State advertises a new breed of sheep that is dog proof.

Metinks there is a greater fortune in store for the man who will evolve a breed of sheep that is democrat proof. The latter I would like very much to possess, but the former I don't want, for a sheep that will not even tempt a dog is not the sheep for me.

You may think I have touched upon politics or on forbidden ground, but when a shepherd contemplates what has occurred in the last three years and sees the slaughter of his flocks and his ruined business from which he had derived a precarious living you must at least concede him a show to strike in self-defense, for that is the first law by which we are governed. And it matters not who is hurt by his striking, for in fancy he hears the bleating of his slaughtered flocks, and the suffering in many instances of the individuals of his family demand that he strike right and left in self-defense regardless of the results.

The President: Gentlemen, we have here a manuscript of an address on the subject of Long-Wool Sheep, their History and Characteristics, by the Hon. D. C. Graham, of Cameron, Illinois. As the author himself cannot be here to read it the Secretary is now requested to do so.

The Secretary then read the address of Mr. Graham as follows:

LONG WOOLS.

THE LEICESTERS, COTSWOLD AND LINCOLN BREEDS OF SHEEP, THEIR HISTORY, CHARACTERISTICS, ETC.

Mr. President and Gentlemen of the Illinois Sheep Breeders' Association: The topic assigned me by your Honorable Secretary is one of great interest to all lovers of the sheep industry.

While I must confine my remarks to the three distinct breeds named that I am to talk about, I have no desire to cast any reflection upon other breeds of Long-wools known in History. Such as the Texel, British or Romney Marsh, Irish, Scotch-Horned, Cheviot and Kentucky improved.

First.—When Bakewell made his great improvement on his Leicester sheep in or about the year 1750, his improved sheep soon extended all over Central England, and later on were crossed with the Cotswold, another long-wooled sheep. This cross was pursued so extensively that in a very few years there did not exist a single Cotswold flock that could be classed as purely bred. Through this cross Bakewell was successful, but the Cotswold breeders were not, so that crossing was suspended in 1820, and the former model of the breed adhered to.

To Bakewell the victories of the Leicester sheep are indebted, not only to improvement that has been made on them during his life-time, but in his system of breeding, improving and perfection of a model flock, how well he succeeded. For we find in 1790 he received three hundred guineas for a ram of his flock, and six thousand two hundred guineas for ram service that year.

The old Dishly Leicester then improved, became the popular breed of sheep, not only in the last century, but has continued so to the present day in England, Scotland, United States, Dominion of Canada and other countries.

Previous to the war of the revolution, both the old and the new Leicesters were imported into the New England States. History tells us that Washington owned a flock of these sheep, and that when he was inaugurated President of the United States, April 30, 1789, he was wholly clothed in American manufacture, and he is said to have read his message to Congress in the ensuing year, 1790, in a full suit of broadcloth made at Hartford.

When Washington returned to private life, his sheep, numbering 800 head, were sold. G. W. P. Curtis purchased some of them, including two imported Leicester ewes.

About 1805, Capt. Beanes, of New Jersey, succeeded in shipping some rams and ewes from England, full-blooded New Leicesters, and sold them to Capt. George Farmer, who afterwards sold his rams for a thousand dollars each. A Bakewell prize ram, one year old, bred by Col. Lee, of London, was exhibited at the Arlington Sheep Shearing, April 30, 1805, where he was shorn. The weight of fleece was 12 pounds, 5 ounces; the ordinary length of his wool 11 inches; extreme length 13 inches.

While Washington in his day, and hundreds of others owned the Bakewell and New Leicesters that were held in high esteem, there is a question of doubt as to whether many of them were purely bred.

Ninety-six years ago a minister, named Toofy, an Englishman, imported into Canada a small flock of the New Leicesters, and in 1843 a few farmers in Canada imported small flocks of what were then called the Yorkshire Longwool Leicesters, that were popular with the farmers.

Other importations followed, selected from the best flocks in England. These were crossed with both Cotswold and Lincolns, so-called at that time, 1855-6, the object being to obtain heavier fleece.

The English breeders improved on the Bakewell type by increasing the size of the sheep and bettering its fleece; the Canadian breeders followed by importing larger and heavier rams, and in a few years the short-legged, compact, fine-boned, long-wooled Leicesters were not numerous in Ontario.

From 1845 down to the year 1875, the crossing of the Leicesters, Cotswolds and Lincolns became the leading theory in breeding in Ontario and in the States. Sheep men preferred it because for size, carcass and length of staple in the fleece.

□ This system of crossing and mingling of breeds in most of the flocks continued until, except to the practiced eye, the distinction between the breeds was lost. However, there were a few breeders in Ontario that held to the original type of the Leicester and Cotswolds, but as to the Lincolns, (so-called) the only claim at an early day, 1865-70, was that the origin of the breed was the cross between the Leicester and Cotswold.

The Leicester became generally disseminated through the flocks of the better class of farmers in Ontario who adhered to the pure blood. Keeping up their flocks either by new importations or by exchanging rams with those who owned different strains of the same breed from their own.

There was, however, one objection to the pure bred Leicester, as claimed; that they were not as prolific as some of the other improved breeds. In my opinion this supposed defect is attributable only to excessive fatness characteristic of the old and new Leicester sheep.

What are known as the Border Leicester, which is a great improvement over the new and old Leicesters, and is a distinct breed, having special characteristics not found in either of the other breeds, though without doubt they are the offshoot of the new and the old Leicester with an infusion no doubt of the Cheviot blood.

The Border Leicesters are growing in favor and are to be found to-day in Ontario, Manitoba, Nova Scotia, New Brunswick, Prince Edwards Island, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, Iowa, Kansas, Nebraska, Missouri and Colorado, and animals from the different flocks in Canada, and in all the States named are recorded in the American Leicester Record, first volume, and in the second also which will be issued shortly.

The Border Leicester seem to thrive and do well on this side of the Atlantic and have not the tendency to degenerate like the other breeds of sheep which require frequent importation of foreign blood. John Kelly, of Ontario, is the most extensive breeder of these sheep in America, Mr. R. J. Stone says, or in the world.

The special points of breed are: Head well set on; long and broad between the eyes, but not up to the crown; not too heavy behind the ears; ears well set and free from blue—sometimes black spots appear with age; the neck is well set into the shoulders, full and broad at the base; the shoulders deep and wide; breast full and broad and no uneven and angular formation where the shoulder joins the neck or back; deep in flank; quarters long and square; heavy boned legs that stand wide apart, with no looseness of skin on them; straight on back and broad; long body; belly nearly as straight as back; wool glossy, soft and good length.

The Cotswolds are the most ancient of the recognized breeds of sheep. They derived their name in England during the last century from the system there in vogue in protecting the sheep during winter. They are natives of the low Calcarean hills on the eastern side of Gloucestershire. Oxfordshire, Norfolk, Hereford and Wales also claim that honor.

They seemed to thrive and do well on the bleak upland known as the Cotswold hills of Gloucestershire. The hills were called Cotswold hills because of a system of folds, sheds or buildings for protection in winter, and were named Cots or Cottes, and with the hilly ground or woold, on which they fed, gave the name both to the sheep and their habitats.

Previous to 1835 the Cotswolds were but little known in the United States. In 1840 Mr. Sothern imported nineteen head that cost him \$110 a head, and in the same year Mr. Sothern and Erastus Corning imported 100 head of the cross of the Cotswold and Leicester, which were said to have been superior to the pure bred Cotswolds.

The first importation of Cotswolds to Canada was made by Messrs. Miller and John Snell in about 1855. In 1856 Mr. Stone, of Guelph, imported a choice lot of young sheep and because of their great size and long heavy fleeces they became very popular among the farmers. The popularity of the Cotswolds continued for more than twenty years from the time of their first introduction in Canada, and were in demand not only in Canada, but in the United States as the demands for Longwools were increased by the tariff law of 1867, which laid a heavy duty on sheep and wool, except for pure bred animals imported for the improvement of sheep in the United States. While Canada had thus to pay a heavy tribute for the importation of grade sheep and wool by the operation of the new tariff, it enlarged the home demand in the States, and hundreds of thousands of the so-called purely bred sheep, Cotswolds and Leicesters were imported from Canada to the United States.

The long combing wools were in great demand in the United States, and the small amount of this class of wool was not equal to the demand. I well remember when fifteen or twenty of our Illinois prominent breeders of to-day, and many of them importers, owned flocks of Cotswolds that were immensely popular, and continued so for many years—in fact monopolized the attention of sheep breeders at the fairs.

The Cotswolds are large-framed, long-wooled, rather coarse, are slow feeders, and when fat, it is principally external; the flesh is coarse and open.

The head of the Cotswolds is large, wide across the forehead, the eyes full and prominent. The head should be well wooled, principally the forehead and cranium, with long lock hanging down over face. The neck should be long and moderately thick, especially at the base and where it joins the head. The carcass should be long, level along the back, and the ribs well sprung. The underlines are not true and the flanks are often weak. The greatest defect generally is the highness under, and the short span between the hip and flank.

The Cotswolds are considered a success in crossing with other breeds, as they impart size and wool. Since the American Cotswold Record has been established, great care has been taken to maintain their characteristics and pure breeding by a few enthusiastic breeders in Canada, but there are very few flocks in the United States, as they have not maintained their relative position with us since the advent and popularity of the Downs, or black-faced sheep.

The Lincoln breed of sheep are natives of Lincolnshire, England, where they are purely bred, and are in demand in Buenos Ayres, Australia and New Zealand for crossing on the native sheep.

In the years 1836-1840, several specimens of the Lincolns were imported from England into the eastern states, and in a few years almost lost their identity, in consequence of a continued crossing with the Leicesters and other breeds. They were introduced into Michigan and Illinois in 1856, principally from Canada, and for a few years were in great demand. But like the other breeds of longwools when fashion changed, the interest in them abated, and now are merely maintaining an humble position among the Leicesters and Cotswolds. There is a record established for them in Illinois, in Michigan, and one in Canada.

The Lincolns are not overly large, but carry a great weight for their size and appearance. They mature early and lay on fat readily with reasonable care.

My boyhood days had been spent with and among the longwools in Ontario previous to 1857, when I moved to my present home in Illinois. Ten years later, 1867, I returned to Ontario and selected 67 head of the best type of the Leicesters (all lambs and yearlings) I could find, and shipped them to my farm in Illinois. The demand was so great I had only a few left in the spring after my shipment. The fleeces of one of these lambs tipped the beam at 18½ lbs., and fibre of fleece was 14 inches in length. This lamb was purchased of Mr. John Wright, of Mohawk, Ontario. Since 1867 I continued to make selections from the flocks in Canada and brought them to my farm in Illinois. My last shipment in carload lots was in the winter of 1888. In 1890 I sold all my Lincolns, and in 1892 all my Cotswolds. I still retain a choice flock of Leicesters.

There is no place to be found in this western continent that has or can equal Ontario, Canada, in the production, breeding and importation of the Leicesters, Cotswolds and Lincolns. Previous to a few years ago, when records were established for these breeds, they were badly mixed by the system of crossing. It was a general mixing of these breeds, the object of which was a large carcass and heavy fleece, regardless of the injury done in destroying the standard of each of the breeds.

Everywhere could be found flocks of Leicesters with a small tuft of wool on the forehead, Cotswolds almost bare on the head and Lincolns bald-headed. These flocks were generally set forth as true representatives of each breed.

I do maintain, fearless of successful contradiction, that no Leicester of the standard type and thoroughly bred, can have wool on the forehead. Also, the standard type and thoroughly bred Cotswolds cannot have a bare head, or even thin scattering locks on the forehead; the lock should be thick and prominent all over the cranium and forehead. In regard to the Lincolns, their early history is in such an indirect manner that they cannot be definitely traced, other than they resemble the old Teeswater sheep, imported into the eastern states at an early day.

However, the Lincolns are a distinct breed of sheep, with white, heavy long countenance, not bald, or face of fleshy color, but thin scattering locks well up into the crown.

Gentlemen of the Association, you know the sheep business has not been profitable of late years, and why? The answer comes from the 2,000,000 sheep owners in the United States who have lost \$300,000,000 during the twenty months since wool was put on the free list.

If the President of the United States had issued a proclamation on the 4th day of March, 1893, that all males of the sheep kind should be killed, he could not have done so much injury to the sheep industry of the United States, as he has done by permitting the wool act to become a law, which opened our markets to the flocks of South America, Australia and South Africa, where a semi-barbarous people can produce wool at a cost of 4 or 5 cents per pound.

The President: We have but one more address on the program, and that is by the Honorable E. B. David, of Aledo, on the subject of Sheep in the Show-Ring. I hope not to infringe too much on your good nature and patience, if I ask your indulgence, while Mr. Springer goes down to get him. He said if he was not here when his turn came, to call him.

Meanwhile it would be decidedly proper to discuss the papers which have been read, in any manner you may desire. We shall be glad to hear remarks from anybody. If either Mr. Garland or Mr. Graham has made statements you dislike, do not be backward about saying so, but pitch right into them and give them a good rattling up.

Mr. Garland: Mr. President, I am not the one to make suggestions, but no one else seems disposed to do so. There was a remark in the latter part of Mr. Graham's paper that aroused my attention. Speaking of the sheep there, he said that type would thrive and more nearly reach perfection in Ontario than in any other point in the country.

If there are any breeders of long-wool sheep here, I would like to hear from them suggestions on the subject. That class, as I understand, comes from a temperate and humid climate, and why it should do better in Ontario, where the climate is comparatively cool than further south, I cannot see. If it is true, I would like to hear some reason for it. If it is not, I would like to hear the statement exploded at this time and place as well as any other. As mere theory, I do not believe it.

John Stewart, of Kane county: Mr. President, I saw some fleeces of sheep imported from the Highlands—beautiful long-wool sheep, and I saw some very beautiful sheep of this class in the north part of Scotland. I was under the impression that a northern country was best for sheep—made the best sheep and made the best wool. I may be mistaken, but that is my impression.

Mr. Garland: Why is England producing the best type of this sheep?

Mr. Stewart: I saw some far up, and it made me think they did well there.

Mr. Garland: Mr. President, I saw some as fine as I have ever seen, I was going to say, in the torrid zone, but certainly in the temperate. I am speaking now of the long-wool sheep. Take the northern portion of New Zealand and Queensland; there they get admirable wool, and in New Zealand, where they thrive so well, the climate conditions are similar to England, humid, and not so exceedingly cold as in Canada.

A voice: Not hot.

Mr. Garland: No, sir; too near the ocean there.

Mr. President: Gentlemen, ask these people some questions. I am satisfied, they know a good deal they have not told yet. Why cannot those sheep be raised as well in this State as in Ontario?

Mr. Garland: I do not know. My impression is, they can be.

A voice: Cannot raise as high grade of sheep in this country as in Scotland. Climate has something to do in making nice mutton. I have eaten mutton here of nearly four hundred pounds, with three-fourth fat on the ribs. I am not a sheep raiser.

The following is the address of Mr. David:

SHEEP IN THE SHOW-RING.

It is a fact that cannot be successfully controverted that properly conducted Live Stock Exhibitions have done more than any other single influence to create and cultivate the public interest in breeding superior animals. Many a man who is to-day breeding first-class stock, can trace back his determination to excel, to the time when his eyes were opened to the fact that others were gaining reputation and making money by getting into the front rank through judicious purchases, and staying there by careful study and untiring industry, without which no business can be made a permanent success.

Live Stock shows have a two-fold object; first, to show what is possible in the direction of improving animals, and to bring these possibilities within the reach of every man; and, in the second place, to in some measure reward those who have been successful. This places every exhibitor in a position of a teacher, and to that extent imposes upon him obligations which he should appreciate, and endeavor to meet to the best of his ability. The first requisite of an exhibitor of sheep is to get the best animals within his reach. A really good animal, implies a good pedigree, as without this, individual merits can not be transmitted with any degree of certainty. A really good pedigree and a really first-class sheep do not always go together. I do not believe that any man can be a successful exhibitor of sheep who is not himself a really good judge of the breed of sheep he is handling. If he is a good judge, he will not be likely to bring into the show-ring any animal that has not a reasonable chance to get a premium, and if any man is disposed to enter for the show-ring an inferior animal, he should not be allowed to do so. With good breeding, and a high standard of individual merit secured, the next care is to properly fit animals for exhibition. On this point we find a wide range of opinion as to what is a good policy, and what should be allowed by the rules of the show.

Every exhibitor should get his sheep into the best possible condition to show their merits and capabilities for development. To this end they must feed well, and at the same time aim to give prominence to all the best points of his animals, while carefully guarding against all deceptive appearances. No animal is perfect, and while it is the right and the duty of an exhibitor to give reasonable prominence to all good points of an animal, he has no right to conceal its defects, whatever these may be. He should not, for a moment, lose sight of the fact that he is a teacher as well as a show man, and if he is not candid with those who attend the show to learn from him, sooner or later his deceptive practices will come home to annoy him. In the show-ring, as everywhere else, "honesty is the best policy," no matter how strong the temptation may be for the moment to get a premium or make a profitable sale.

It is a fact that there is a better opportunity, and probably a stronger incentive, to overdo the work of fitting up show sheep than exists in the care of other animals. This results from the nature of the sheep, rather than any inherent dishonesty on the part of those who show the sheep. A good many years' experience in charge of the sheep department has satisfied me that sheep exhibitors are fully as honest as exhibitors in any other department of the Fair. The fleece gives opportunity for concealing defects of the body by unfair shearing, which is quite certain to impose upon visitors who have no chance to find out the real facts in the case. While it may be true that this practice does not deceive the competent judge, this fact is not enough to shield it from condemnation. The judge is not the man who pays to get into a Fair to see what has been done in the way of breeding good sheep. The thousands of farmers who attend to see first-class sheep of the various breeds, and to make up their minds which of such breeds they prefer, should not be misled; and to protect them, if for no other reason, every well-regulated Fair should enact and enforce rules against shearing so as to conceal defects of carcass, or to make any sheep appear to produce more wool than it is really able to grow.

For these reasons I have always favored, and will continue to favor, rules requiring good, honest dealing between exhibitors and visitors to the Fair. To this end I am likewise opposed to all coloring and tampering with fleeces that give them any other than their natural one. Fortunately the practice has not become popular with the breeders in this country, but the fact that the requests for repeal of rules against coloring has twice been made by a considerable number of breeders, (though many of them were not exhibitors of sheep) shows the necessity for guarding against the introduction into this country of a practice heretofore confined mostly to Great Britain.

Every Fair should be so fitted that as nearly as possible animals can be just as safe and comfortable as they were at home. No Fair management has the right to ask breeders to expose their sheep to cold and dampness, in addition to the risks incurred in shipping and confinement in pens to which they are not accustomed. Our own State Fair has too often been derelict in this particular, though I am glad to know that it is now no longer exposed to criticism on this behalf. I believe that no more comfortable or convenient equipment for a sheep show can be found in this, or any country, than that now on the Illinois State Fair Grounds, and I know that there is every disposition on the part of the State Board to still farther improve upon what has been done whenever experience shows the necessity of so doing.

Experience as Superintendent of the sheep department for a number of years has convinced me that there is room for improvement in the conduct of some exhibitors after they come into the show-ring. Some men seem to have a mistaken idea that they can gain something by dropping a word in the hearing of the judges about the age, condition, or especial merit of some animal under review. No man can justify this as fair treatment of judges, or fair dealing with competitors, and its practice should at once insure the exclusion of the offender from the show-ring. There is no one of the rules of our show-ring that should be more rigidly enforced than this one, against talking in the hearing of the judges, and in my opinion there is no one by which exhibitors can gain more in observing. Such effort to bias the opinion of judges is quite likely to have an effect directly opposite to the one desired.

And now, a word as to judges. It is not always easy to fill the requirements in this particular. Really first-class judges of sheep are not very plenty, and even when found, they may not always be so disinterested as to leave them free from a suspicion of prejudice in favor of or against some exhibitor, or some family of animals. A great improvement over the former custom has been made by the employment of men who are recognized as expert judges, though there are some Fairs where this rule has not yet been introduced. My own preference is to have the work done by a single judge, say at least one for each of the three divisions of sheep, and if one could be had for each distinct breed of sheep, it might be better. The advantage of judging by experts is twofold; it not only insures justice between competing animals, but it gets the work done in shorter time, which is an important consideration in the interests of both men and animals.

The State Board of Agriculture occupies a position midway between exhibitors and the people who attend our Fairs and furnish the money for paying premiums. The interests of both these parties must be recognized and protected; and for this reason it is often found difficult to allow exhibitors all the privileges they ask for. But as a rule the line is drawn fairly, and should be so recognized.

Of late years there has been a growing pressure for making additional rings so as to allow some newer breeds of sheep to compete within itself. This I have always favored, so far as it could be done within the resources of the State Board of Agriculture, and provided enough animals were likely to be shown to justify the trouble and expense. To me it has never seemed right to materially reduce the premiums on breeds heretofore recognized so as to give the money to newer ones. The addition of more sheep rings means additional money for the sheep department; and when we consider that there is likely to be just as strong a pressure in all the other departments for more rings, and more money, a better idea of the difficulty may be gained, and yet, the State Board must not always judge as to the merits of any particular breed, but to add new classes as fast as possible, and leave it to public opinion to decide as to the breeds which may be best adapted to the locality or climate where the would-be breeder lives. A study of all these phases would go far toward shielding Fair managers from criticism for failure to respond to every call for more rings and more money.

The great improvement in all breeds of sheep has made the lot of the sheep exhibitor one of difficulty and hard work. It is time and money lost to ship and show animals that are not well-bred and properly prepared for the show-ring. So many of our sheep exhibitors are masters of the business of feeding and fitting, (and I believe in all the fitting that can be done without misleading the public) that really meritorious animals, which have not had such skillful attention, appear at a disadvantage, and fail to get their credit to which they are entitled. And this applies not only to the show-ring, but also to the sheep-pens, where all sales are made. And after all, selling is quite as important to most breeders as winning premiums. Success in the show-ring helps a man to advertise, but the work of the selling must be done at the pens.

To those who have exhibited stock I need not suggest the importance of always keeping in good humor. The man who takes his temper to the Fair makes a mistake. Of course things will not always move along just as he would like to have them. An ever-present source of annoyance is to be found in shipping stock. Railroads are likely to be taxed with the pressure of shipments on account of the Fair, and are quite certain to be delayed so as to embarrass the calculations of shippers. These get to the grounds tired and hungry to find the bustle and confusion inseparable from the work of preparation. And then every exhibitor cannot get just the location and pens that he would prefer. The man who can, under these conditions, have on hand a plentiful supply of smiles and cheerful words, may be called fortunate. I am pleased to be able to testify that, with rare exceptions, the sheep exhibitors at the Illinois State Fair have been of this class.

After all that may be said, experience will be found the best guide for conduct at the Fair and in the show-ring. Plenty of common sense always on hand, due recognition of the convenience and rights of other people, a knowledge of what is expected and prompt acquiescence therein; in a word, always treating others as you would have them treat you, this about comprehends all the requirements of the show-ring.

The President: I think it was Mr. Pickrell who raised the question awhile ago of membership, and how to know who are members. I want to say in this connection that I have received a letter from Minneapolis, Minn., asking for the constitution and by-laws of this Association. Have you them here, Mr. Springer?

The Secretary: They are as follows:

ILLINOIS SHEEP BREEDERS' ASSOCIATION.

BY-LAWS.

1. This Association shall be known as the Illinois Sheep Breeders' Association.
2. The purpose of the Association shall be for the betterment of the sheep industry in the State of Illinois.
3. The members of the Association shall be reputable citizens of the State of Illinois who are interested in the sheep industry.
4. The officers of the Association shall be a President, a Vice-President, a Secretary, a Treasurer, and an Executive Committee consisting of seven members, including the President, Vice-President, Secretary and Treasurer.
5. That the membership fee for this Association shall be \$1.00.
6. That the annual dues of the Association for each member shall be \$1.00.
7. That the Secretary shall cause to be published, from year to year, and in the *interim* when it is ordered, the proceedings of the Association for distribution.

The President: Now, gentlemen, if there is anybody here who wants to step in and pay the membership fee of one dollar, there is now a first rate chance to do so. I should like to know what is the pleasure of friends in this matter. According to the by-laws, the officers of the Association consist of a President, Vice-President, Secretary and Treasurer, and now is the time to elect them. It will take but a few minutes.

The following officers were elected for the ensuing year:

President, R. M. Bell, Decatur; Vice-President, R. J. Stone, Stonington; Secretary and Treasurer, John G. Springer, Springfield.

Executive Committee—John S. Campbell, Clayton; G. M. McMillan, Canton; J. D. McMurray, Curran; John S. Lyman, Farmingdale.

The Association then adjourned.

PROCEEDINGS ANNUAL MEETING ILLINOIS SWINE BREEDERS' ASSOCIATION,
HELD IN THE HOUSE JUDICIARY COMMITTEE ROOM.

STATE HOUSE,
SPRINGFIELD, ILLINOIS,
WEDNESDAY, JANUARY 8, 1896. }

The meeting was called to order by Hon. Charles E. Vigal, President, who extended a cordial invitation to the annual meeting of the Illinois Swine Breeders' Association.

Mr. Vigal called attention to the extended useful service rendered by the organization and the vast amount of valuable literature of general interest to the swine breeders contributed through the annual meetings, extending over a period of more than a quarter of a century. Mr. Vigal assured all present of a cordial welcome to the meeting.

The response to the address of welcome by Mr. J. P. Pressler, of Curran, was well received.

The business of the Association then received attention, and the following officers were elected for the ensuing year:

President, C. E. Vigal, New City; Vice-President, W. E. Robinson, Greenville; Secretary, Charles F. Mills, Springfield; Treasurer, J. R. Fulkerson, Jerseyville.

Executive Committee—A. J. Lovejoy, Roscoe; W. A. Young, Butler; J. A. Countryman, Lindenwood; T. E. Bone, Tallula; G. W. Trone, Rushville.

The officers and Executive Committee were authorized to fix time and place of holding the next annual meeting.

Motion adopted that a vote of thanks be and are hereby extended to the gentlemen who have prepared papers, and others who have contributed to the success of the meeting.

Motion adopted that the Association contribute its proportion of the expense of printing and distributing the programs of the meeting.

The programme of the meeting then received attention and the following papers were read and discussed:

HEALTH OF THE PIG.

(By Dr Donald McIntosh, Champaign)

Edmond Parks says: "If we had a perfect knowledge of the laws of life and could apply this knowledge in a perfect system of hygienic rules, disease would be impossible. Hygiene is the art of preserving health. It aims at rendering growth more perfect, decay less rapid, life more vigorous, death more remote." So beautiful and comprehensive is this definition it ought to be often repeated.

In dealing with this subject of health there are several things to be taken into consideration; this I will do as briefly as possible. First we should follow natures' steps as closely as practicable and should consider the condition of the pig in its natural haunts and deprive it of as few of these as possible. The pig is an omnivorous animal and eats all. It is destined by nature to uproot plants and grope for food among the dropped acorns and other fruits of the forest, and Youatt says: "In point of fact the snout of the pig is its spade with which it roots in the ground for roots and earth worms." By putting an iron ring through the cartilage of its nose we thus deprive it of the power of searching for and analyzing its food, and by doing so we prevent it from getting substances which would be very beneficial for the maintenance of its health. To be profitable it is necessary to feed pigs more food than they could obtain in a natural state in order to bring them to maturity as fast as possible, and this is done at the expense of the animal's health. Seeing that this has to be done, we ought to consider what kind of food is best to obtain this result, and at the same time keep the animal in a vigorous condition. Yeo says that if an animal is in perfect health the pure alkaline blood circulating through the tissues of the body prevents the germs of disease from finding a suitable place to develop. Let us look for a short time at the physiological actions of some of the most important organs of the animal body, as we will then be better able to understand some of the causes of ill-health. The stomach of the pig in its natural state is small and the intestines have great assimilating power. In this capacity the pig is ahead of all other animals, which accounts for its taking on fat so rapidly. By giving large quantities of food the stomach becomes distended and in some cases weakened so that it cannot digest the food properly, and it passes out of the stomach in this condition into the intestines where it acts as a foreign body, setting up disturbance, deranging the mucous membrane, leaving it in a condition favorable for the development of microbes and other germs of disease, the indigested portion will pass out as feces. The pig should be fed as much during the fattening period as it can digest and nothing more. This can be easily ascertained by examining the feces. The kidneys secrete the urine and other effete material, the result of the disintegration of the nitrogenous substances in the body; they require to be in a healthy, active state to perform this function or blood poisoning is the result; if not blood poisoning, sufficient disturbance is caused to leave the animal liable to disease. The heart should be strong and vigorous in order to be able to propel the blood to all the tissues of the body to nourish them. The lungs should be strong, with large capacity to draw in oxygen and give off carbonic dioxide and other effete materials, in this way keeping the blood pure. The nerves which govern all parts of the body should also be strong and active. This is largely accomplished by the kind of food we feed the animal on. What is the animal body composed of? The chemical constituents of the animal body may be thus classified: First, aluminous substances characterized by the presence of nitrogen, carbon, hydrogen and oxygen. Second, carbo-hydrates and hydro-carbons characterized by the absence of nitrogen and the presence of carbon hydrogen and oxygen. Third, salts and water. In order to keep all the tissues of the body in healthy action and vigor it is necessary to see that the animal gets a food which contains all these elements or to give a mixed diet which will combine to furnish the materials necessary. Food should be composed of nitrogenous portions called albuminates or flesh makers; hydro-carbon or fat makers, carbo-hydrates, which are starch or sugar bodies, also fat producers. These are all necessary for the healthy development of the animal tissues. Let us see which of the various grains contain the substance mentioned.

	Corn.	Oats.	Peas.	Red Clover.
Water	13-9	13-5	13-8	16-7
Albumen	10-1	11-9	22-4	12-4
Fats	4-8	5-3	2-5	8-2
Carbo hydrates and non-nitrogenous extractive matters.	66-8	57-5	53-3	20-9
Cellulose	2-8	5-1	9-2	35-3
Ash	1-7	2-6	2-5	6-2

These figures vary considerable according to the condition of the ground on which the grains grow, whether it is rich or poor, cultivation, etc. The above table shows that oats and peas are more evenly balanced than corn. They are therefore the grains best suited for the growth and development of the tissues of the body and also to keep them in a healthy state. When food substances are deficient in the albuminates and salts the system is generally lowered in tone, and there is a tendency to the formation of "exudations," composed of imperfectly developed cells, which in a great majority of cases, from the very beginning, are incapable of development into perfect entities, having only one potential quality, that of dying, and in so doing causes various derangements in the body, especially in the respiratory organs, producing tuberculosis and affections of the glands of the intestines. Oats also contain a nitrogenous alkaloid called avenin, which possesses the property of acting as a nerve stimulant. It is on this account that horses largely fed on oats are so spirited. The salts or ash that these substances contain are all needed in the animal body in order that they will grow and also support the system in older animals. Oats is the grain par excellence for the horse and peas for the pig. Corn, alone, has not sufficient albuminates and salts and has too much starchy substance, which is converted into fat, and is therefore a grain which is not fit food for a young growing animal. It is necessary to feed other materials which contain albuminates to supply the deficiency of this material in the corn. And I am satisfied that the prevalence of cholera among pigs in the corn growing States is in a great part due to the feeding of too much corn. In Canada, where the pig is mostly fed on peas and oats and the refuse of wheat and rye, cholera is unknown. It is true there have been a few cases of cholera in Canada, but it has been mostly on the borders where it was supposed to have been brought over the river, and some years ago at Montreal supposed to have been caused by feeding on distillery slops. Messrs. Lawes and Gilbert made a number of experiments on feeding in England, and found that pigs fed exclusively on corn would frequently swell in the neck. They did not wish to discontinue the experiment and therefore resolved to try the effect of putting some mineral substance in a trough within the reach of the pigs. They made a mixture of twenty pounds of sifted coal ashes, four pounds of common salt and one pound of superphosphate of lime. A trough containing this mineral mixture was put into the pen at the commencement of the second fortnight, and the pigs began to lick it with evident relish. From this time the swellings or tumors, as well as the difficulty in breathing began to diminish rapidly, and at the end of the month had entirely disappeared. The three pigs consumed of the mineral mixture described above nine pounds during the first fortnight, six pounds during the second, and nine pounds during the third. This although only a single experiment shows, I think, that pigs may be fed on corn with impunity providing that a compound of this or some other may be put within reach of the pigs. I would suggest the following:

First, that we should avoid inbreeding as much as possible, as there is no doubt that it lessens the vitality of the offspring, leaving them in a condition liable to disease.

Second, that we select large sows, well developed and at least one year old.

Third, that the boar should be of a smaller breed, compact, and of a vigorous constitution. This combination will insure strong, healthy offsprings.

Fourth, that the sow and the boar should be fed on ground oats and bran mixed, sufficient to keep them growing but not too fat, as when they are too fat their vitality is lessened. They should have a small field to run in, separate, at some distance from each other. They should not have rings in their noses, but should be allowed to dig at pleasure, as they will find material in the ground useful for their health. If they show signs of getting fat, cut down their feed; on the other hand if they are losing flesh feed a little more. They should have a shelter from the sun in summer and a comfortable place to sleep in at night in winter, they should have green clover in summer and dry clover hay in winter. Give plenty of fresh water and a little salt mixed with their food. Pigs treated in this way will seldom have any ailments.

Fifth, that having strong, healthy, young pigs to begin with, it is necessary to feed them on materials that will keep up vigor and at the same time produce rapid growth. This can be accomplished by feeding them on ground oats or peas mixed with bran and turning into a clover field if possible; if not, clover should be cut and brought to them. Milk of all kinds is useful. They should have a field to roam in, and after they are old enough the boars should be separated from the sows. The above food contains all the elements necessary for the growth and development of the pig. The bran, shell of the oats and the clover contain a large percentage of cellulose, and although the pig cannot digest more than half of this material, yet it is very useful as it contains just what is needed to assist in forming the tissues of the body. Pigs fed as above will have all parts of their bodies well nourished and in a state of vigor to perform all the functions required of them to fortify the body against at least ordinary diseases.

Sixth, that too many pigs should not be kept together, as they are apt to sleep in the same place, and although it may be well ventilated or even out in the open air, they are apt to breathe some of the foul air emanating from their bodies. No class of animals thrive well where numbers are kept together. When the time arrives to feed the hogs for market you will have a splendid foundation to begin feeding on; strong digestive and assimilating organs, which will be able to digest and assimilate large quantities of food. Corn can now be used with a little ground oats and bran with advantage and profit. I think that if this method were carried out, in a few years hog cholera would be a thing of the past. Gentlemen, try it.

EXPERIMENTAL SWINE FEEDING.

(By W. J. Fraser, Champaign, Ill.)

This paper is principally a compilation of experiments in swine feeding conducted at the different agricultural experiment stations. Some of the stations have done a good deal of valuable work along this line, most of which is of a very practical nature and of much value to the general swine feeder.

There are two purposes for which swine are fed. One, and the most common among farmers, is to produce the greatest number of pounds of pork at the least possible expense, regardless of the best interests of the animal.

The pig can be made to gain faster by keeping him from exercising, so he is usually confined to a small pen. It is cheapest to fatten him on a carbonaceous ration, such as corn, so that is the principle food which he is given, if not the only one. As he goes to market in a few months at most there is no very serious injury done.

The other purpose is to produce the best pig regardless of expense, which is the method largely pursued by breeders of pure-bred stock, and much the same treatment should be given to all breeding stock and young pigs. They should have a somewhat varied diet or at least one that contains a large amount of muscle and bone-forming elements, such

as clover, peas or oil meal. To expect a sow to produce and grow a litter of good, healthy, well-developed pigs out of as highly a carbonaceous ration as corn alone is simply absurd. Of course pigs can be raised on corn alone but they will not be as strong as if fed a narrower ration. To put the proper amount of muscle and bone into her pigs she must have a large supply of albumenoids and ash and the only way she can get them is through her food.

A well-regulated system of feeding should be commenced as early as possible with the young pigs. A somewhat bulky ration should be given to extend their digestive organs and make them good feeders; for this purpose a liberal supply of skim milk seems to be the best feed.

The stations have shown that skim milk forms the best and cheapest basis of a ration for young pigs. Being a nitrogenous food, it is excellent to feed in connection with corn. Young pigs should have a richly nitrogenous diet such as milk, changing it to a wider ration as they get older, which may be done by adding corn. At the Wisconsin station corn meal was compared with skim milk. The pigs on milk made the larger gain, it taking 19 lbs. skim milk or 4 lbs. corn to produce a pound of gain. The greatest gain for food eaten occurred when two pounds of meal when fed with $3\frac{1}{2}$ lbs. milk. From one to one and a half pounds of skim milk to one pound of corn meal is as much as can profitably be fed when milk is worth 20 to 25 cents per 100 lbs. and corn meal 75 cents per 100 lbs.

Several comparisons have been made between skim milk and butter-milk, which show very slight difference in favor of skim milk where equal weights of milk were taken, but when fed so as to have the amounts of solids equal, there was no difference.

Whey alone would not maintain hogs but was a great saving when fed in connection with corn and shorts. When corn and shorts are worth 60 cents per 100 lbs. whey is worth 8 cents per 100 lbs.

Owing to the fact that this is the great corn-growing region and that corn produces more available food per acre for the hog than any other crop, it is naturally the principal food he is given from the time he is weaned until he is ready for market. Corn being so cheap it can very properly form a portion of the ration at all times.

At the Illinois station hogs never made good gains on corn alone for more than six or eight weeks. In sixteen trials at this station it took from three to six and one-half pounds corn to make one pound gain and in ten out of the sixteen cases it took less than five pounds.

Several comparisons have been made between corn and corn meal, with small and conflicting differences in the results. In digestion experiments at the Maine station corn meal was a little better digested than whole corn. In two feeding trials one showed practically no difference and the other a slightly larger gain on whole corn. At Wisconsin it was tried with both large and small pigs. With pigs weighing 250 lbs., corn meal gave a little better results, but young pigs made the best gain on whole corn.

In an experiment at Missouri the corn meal was found most efficient, and at the Alabama canebrake station is reported a trial with pigs weighing 80 lbs. in which corn meal was decidedly the best. The experiments at Kentucky are conflicting, one trial being in favor of corn meal and the other in favor of whole corn. The results so far seem to indicate that grinding corn for hogs is hardly profitable.

Corn meal, shorts and a mixture of the two were compared at the Wisconsin station. To produce a pound of gain it took 5.3 lbs. of either corn meal or shorts when fed separately, or 3.3 lbs. of a mixture of equal parts of the two.

In another trial it took slightly more of the mixture than of either alone. In a later trial at Wisconsin in which corn meal alone was compared with a mixture of corn meal, shorts and bran, the pigs on the

latter feed made a much more rapid and economical growth, had stronger bones, more ash in their bones and a larger per cent of lean meat than those on the corn alone.

At the Maine station a mixture of pea or gluten meal with corn meal proved to be much more efficient than corn meal alone, even for large hogs that were quite fat. The same results were obtained at both the Virginia and Massachusetts stations. These results seem to favor the feeding of some nitrogenous food in connection with corn.

Several trials have been made at Wisconsin to test the value of droppings from corn fed steers for hogs. In these trials the pigs were allowed to run with the steers, fed either whole corn or corn meal—the pigs being fed enough corn besides to satisfy them—and the results compared with those fed corn in pens. For those following steers it took 3.4 lbs. of corn to make a pound of gain, while for those fed in pens it took over 5 lbs of corn to make one pound of gain.

In two other trials, pigs following corn-fed steers required less than half the additional feed it took for pigs fed in pens by themselves.

Two trials were made with pigs following steers fed corn meal. In the first there was a saving of 17 per cent., while in the second trial they lost by hogs made fair gains following corn-fed steers, but not as good as hogs on pasture and a full feed of corn.

Cooking food for pigs has been quite largely practiced in some localities, but the results of the experiment stations do not point to its being profitable. At the Michigan Agricultural College two lots of pigs were fed on a mixture of two parts corn and one of oats ground together. For one lot the feed was stirred up with boiling water and the other lot with cold water. For cooked feed it took 4.62 lbs. of feed to produce a pound of gain, and 4.70 lbs. of the raw.

At the Kansas Agricultural College shelled corn was used, the corn being cooked by steam until it was quite soft. To make a pound of gain it took 7.5 lbs. of cooked and 6.3 of raw. This shows 20 per cent. in favor of raw corn.

At Iowa Agricultural College cooked with raw feed was tried for four months. To make a pound of gain it took 4.3 lbs. of raw corn and 5.2 lbs. of cooked—4.2 lbs. raw meal against 5.9 lbs. of cooked.

At the Maine station cooked with raw meal was tried every year for nine years, and raw meal gave best results without an exception, which gives it much weight.

Wisconsin reports ten trials in which corn meal, corn meal and shorts, whole corn and shorts, and barley meal were each fed raw and cooked. The results of every one is in favor of the raw feed. In these 24 trials nearly every one points in favor of raw feed. With so many trials it seems to prove quite conclusively that cooking feed is not only unprofitable, but that a portion of the feeding alone is lost, as well as the labor and expense of cooking. As a partial explanation of this the New York station found that the nitrogenous material of corn was less digestible after cooking than before. The pigs also ate the cooked food much more rapidly, thus not getting it as well mixed with the saliva, which aids digestion.

At the Illinois station on a ration of whole corn only, comparing dry with soaked, the average of 4 trials slightly in favor of soaked corn. Wisconsin station made four trials with soaked and dry feed consisting of a mixture of corn meal and shorts. To make a pound of gain it took 5.31 lbs. of the mixture fed dry and 4.3 lbs. if it was soaked, thus making a saving by being soaked of about 20 per cent.

In experiments with pigs before and after weaning, it was shown at Wisconsin in four trials of one litter each that it pays to feed sows so heavily when suckling pigs that the dams themselves will gain in weight if possible, for the gain made by the pigs while suckling is cheaper than can be made at any time after weaning.

The following table gives the results of the feeding experiments at Illinois and Wisconsin:

Kind of Feed.	No of Trials.	Number of Animals.	Average weight at beginning of trial.	Food required for 100 pounds gain.
Illinois:				
Corn (dry)	13	47	144	582
Corn (soaked)	2	6	238	570
Wheat	2	8	82	519
Corn and wheat	5	17	153	486
Wisconsin:				
Corn meal	8	20	124	525
Barley meal	4	12	159	567
Shorts	1	3	58	525
Corn meal and shorts (dry)	4	12	137	531
" " " (wet)	4	12	136	431
" " " (cooked)	2	6	150	591
Corn (cooked)	1	5	219	748
Corn (raw)	1	4	253	640

At Wisconsin the effect of feeding hardwood ashes and bone meal to hogs on a ration of corn alone was the subject of three separate trials with six pigs each time. The hardwood ashes and bone meal increased the gain every time, the average increase for the three trials being 28 per cent. The strength of the bones and the amount of ash they contained were also largely increased where ashes and bone meal were fed.

The following table shows the result of each trial:

	Bone Meal. lbs.	Hard-wood Ashes. lbs.	Neither lbs.
First trial	519	543	553
Second trial	426	417	466
Third trial	518	515	568
Average	487	491	629

Bones.	Breaking Strength.		
	lbs.	lbs.	lbs.
First trial	417	340	306
Second trial	306	780	392
Third trial	317	635	305
Average	680	581	301

	Total Ash.		
	Grains.	Grains.	Grains.
First trial	108	97	89
Second trial	224	216	144
Third trial	164	138	87
Average	166	150	107

Summing up these experiments we find so far that:

Hogs do not make satisfactory gains on corn alone for more than six or eight weeks.

More economical gains can be made by feeding some albuminous food in connection with corn, such as skim-milk, clover, peas or oil meal.

It is more economical to feed corn whole than to have it ground, as at least the expense of grinding is saved.

Raw feed is better than cooked, as not only the expense of cooking is saved, but the feed is actually worth more raw.

Soaked feed is more effective than dry.

When corn is fed exclusively the ration is made 28 per cent. more efficient by adding hardwood ashes or bone meal. The bones are twice as strong and the amount of ash in them is materially increased.

DUROC-JERSEY HOG.

(By G. W. Trone, Rushville, Illinois.)

Mr. Chairman and Gentlemen: Having received a call from your worthy Secretary, one of the best men to the live-stock interests the world ever knew, to attend the annual meeting of the Illinois Swine Breeders' Association, and in response to a request to prepare a paper on a subject pertaining to the interest of swine, it appears from the program that I have been selected to speak for the Duroc-Jersey hog and why I like them.

My answer would be, because they are one of the best hogs we have to-day.

But perhaps there are those who are not familiar with the true merits of this breed who may wish to have my reasons for the assertion. I would be much more at home in demonstrating my reasons for claiming that they are the best, in a feeding contest than I could by placing them on paper; and I hope those who might differ with me in what I have to say will at least give me credit for being honest and sincere in my views, for they affect our own individual interest, and I could not be honest with you or true to my own convictions if I did not express them after having gained the knowledge by actual experience in the handling for profit or several different breeds of swine.

The Duroc-Jersey hog of to-day needs no introduction, nor need he ever fear of being called upon for an apology for his existence.

When it comes to the production of pork at a profit, of converting grass and grain into pork, the Duroc-Jersey takes the lead. Their grazing qualities cannot be excelled by any breed, and this means to the farmer a great deal when it comes to actual profit.

The origin of the red hog known to-day as the Duroc-Jersey cannot be positively traced and was evidently unknown to the earliest historians of the hog. They have been traced back over half a century, but earlier than that little is known of them. It is generally conceded by those interested in this popular breed of swine that there were two families of them some years ago, one known as Jersey Reds and the other as Durocs or Red Rocks. In some of the counties of New York they were called Durocs, while in others they were called Red Rocks. It has been a question whether the climate, feed and management did not cause different styles of hogs and thus give rise to the idea that there were two different families. There was a strong prejudice against a Jersey Red, and no wonder, for some of the most ungainly, undesirable brutes were shipped out by many of the largest Duroc breeders as good specimens of the breed, until nearly every one was willing to acknowledge it was a trifle hard to find a good one for sale. In the course of time, however, things changed and are different now, and any one can procure a first-class individual by signifying his willingness to pay what a real

good one is worth. These inferior pigs that have been spread broadcast over the entire universe, with ears as large as a tobacco-leaf, black spots and many other things to disappoint the willing purchaser, have been a constant curse to the advancement of this truly wonderful breed of swine, and it is this short-sightedness that has been instrumental in keeping the price of Duroc-Jerseys down.

But no sooner had their true merits become known than new breeders sprung up all over our country, and to-day by their wide distribution we are forced to the conclusion that there must have been red hogs in New York state prior to 1832, or they would not have been the best variety known to the farmers of that state at the time they were Durocs. This name was undoubtedly given by Isaac Frink, a prominent farmer living in Milton, Saratoga county, New York. He named them for a noted stallion he owned. Mr. Frink had a red sow with a litter of red pigs, claiming he had imported the sire and dam. He called them Durocs. Hon. James B. Clay is said to have imported a pair of red pigs from Spain during his residence there as United States Minister in 1850. No doubt some of this stock reached Kentucky and other Southern states, but the question arises again, if we had them before those periods of importation, from whence did they come? Hon. Henry Clay, of Kentucky, is said to have imported four red shoats in 1837 and to have been so well pleased with them that he bred them on his farm at Ashland for a number of years. They were probably the source from whence the family of southern-bred red hogs descended. As to the origin of the red hog history is silent. The best authorities, Martin and Youatt, tell us of no other red hogs than the Tamworths of England, and in all the descriptions of hogs of the older countries—England, Spain and France—no others were known except those claimed to have been brought from the coast of Guinea during the era of the slave trade. Now in relation to the African hog, there appears to be decidedly contrary evidence. In the northern portion there are but few swine kept, on account of the sandy and barren deserts of that country. These breeds greatly resemble the Chinese variety, but are somewhat smaller, being short-legged, round-bodied animals of a black or dark-brown color. History further says that the coast of Guinea used to possess a breed of swine which had been exported as an article of commerce and were in high estimation at that time. The cessation of the intercourse induced by the slave trade and the discovery of more valuable breeds have caused these first red hogs to be almost forgotten. These animals were large in size, square in form, of a reddish color; the body was covered with a short, bristly hair, and smoother and more shiny than almost any other variety of the porcine race. This variety is also found in Brazil, and while there is only one authority on the hog, so far as we have found, that makes the latter statement, it has some appearance of plausibility. There are no positive facts sustaining this origin of the red hog. Colburn tells us nothing of this variety of swine, nor can it be found in any other history than that quoted. If facts substantiate his views that the red hog came from an African breed exported from the Guinea coast, as he says, I have been unable to find any domestic red hog in any country where the slave trade did not extend, and in almost every country where the captured Guinea slaves were landed there we find this valuable red hog. But only in the United States are we able to find positive proof that it was brought directly from Africa. It was, therefore, a fair conclusion from the circumstances and the evidence showing the introduction into our country, that the red hog of the several slave-trading countries had one common origin. While this sounds very plausible, from the standpoint taken and the arguments used, it is still circumstantial.

Fifteen or twenty years ago there were but few of our old, reliable breeders that bred them, but as soon as their true merits were known new breeders sprung up all over our county, until to-day, by the aid of the great Columbian Exposition, held in Chicago in 1893, the improvement made on them, namely, their quick growth, early fattening qualities, their quiet disposition, large, even litters of pigs, their kind, moth-

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The Duroc-Jersey hog of to-day needs no introduction, nor need he ever fear of being called upon for an apology for his existence.

When it comes to the production of pork at a profit, of converting grass and grain into pork, the Duroc-Jersey takes the lead. Their grazing qualities cannot be excelled by any breed, and this means to the farmer a great deal when it comes to actual profit.

The origin of the red hog known to-day as the Duroc-Jersey cannot be positively traced and was evidently unknown to the earliest historians of the hog. They have been traced back over half a century, but earlier than that little is known of them. It is generally conceded by those interested in this popular breed of swine that there were two families of them some years ago, one known as Jersey Reds and the other as Durocs or Red Rocks. In some of the counties of New York they were called Durocs, while in others they were called Red Rocks. It has been a question whether the climate, feed and management did not cause different styles of hogs and thus give rise to the idea that there were two different families. There was a strong prejudice against a Jersey Red, and no wonder, for some of the most ungainly, undesirable brutes were shipped out by many of the largest Duroc breeders as good specimens of the breed, until nearly every one was willing to acknowledge it was a trifle hard to find a good one for sale. In the course of time, however, things changed and are different now, and any one can procure a first-class individual by signifying his willingness to pay what a real

good one is worth. These inferior pigs that have been spread broadcast over the entire universe, with ears as large as a tobacco-leaf, black spots and many other things to disappoint the willing purchaser, have been a constant curse to the advancement of this truly wonderful breed of swine, and it is this short-sightedness that has been instrumental in keeping the price of Duroc-Jerseys down.

But no sooner had their true merits become known than new breeders sprung up all over our country, and to-day by their wide distribution we are forced to the conclusion that there must have been red hogs in New York state prior to 1832, or they would not have been the best variety known to the farmers of that state at the time they were Durocs. This name was undoubtedly given by Isaac Frink, a prominent farmer living in Milton, Saratoga county, New York. He named them for a noted stallion he owned. Mr. Frink had a red sow with a litter of red pigs, claiming he had imported the sire and dam. He called them Durocs. Hon. James B. Clay is said to have imported a pair of red pigs from Spain during his residence there as United States Minister in 1850. No doubt some of this stock reached Kentucky and other Southern states, but the question arises again, if we had them before those periods of importation, from whence did they come? Hon. Henry Clay, of Kentucky, is said to have imported four red shoats in 1837 and to have been so well pleased with them that he bred them on his farm at Ashland for a number of years. They were probably the source from whence the family of southern-bred red hogs descended. As to the origin of the red hog history is silent. The best authorities, Martin and Youatt, tell us of no other red hogs than the Tamworths of England, and in all the descriptions of hogs of the older countries—England, Spain and France—no others were known except those claimed to have been brought from the coast of Guinea during the era of the slave trade. Now in relation to the African hog, there appears to be decidedly contrary evidence. In the northern portion there are but few swine kept, on account of the sandy and barren deserts of that country. These breeds greatly resemble the Chinese variety, but are somewhat smaller, being short-legged, round-bodied animals of a black or dark-brown color. History further says that the coast of Guinea used to possess a breed of swine which had been exported as an article of commerce and were in high estimation at that time. The cessation of the intercourse induced by the slave trade and the discovery of more valuable breeds have caused these first red hogs to be almost forgotten. These animals were large in size, square in form, of a reddish color; the body was covered with a short, bristly hair, and smoother and more shiny than almost any other variety of the porcine race. This variety is also found in Brazil, and while there is only one authority on the hog, so far as we have found, that makes the latter statement, it has some appearance of plausibility. There are no positive facts sustaining this origin of the red hog. Colburn tells us nothing of this variety of swine, nor can it be found in any other history than that quoted. If facts substantiate his views that the red hog came from an African breed exported from the Guinea coast, as he says, I have been unable to find any domestic red hog in any country where the slave trade did not extend, and in almost every country where the captured Guinea slaves were landed there we find this valuable red hog. But only in the United States are we able to find positive proof that it was brought directly from Africa. It was, therefore, a fair conclusion from the circumstances and the evidence showing the introduction into our country, that the red hog of the several slave-trading countries had one common origin. While this sounds very plausible, from the standpoint taken and the arguments used, it is still circumstantial.

Fifteen or twenty years ago there were but few of our old, reliable breeders that bred them, but as soon as their true merits were known new breeders sprung up all over our county, until to-day, by the aid of the great Columbian Exposition, held in Chicago in 1893, the improvement made on them, namely, their quick growth, early fattening qualities, their quiet disposition, large, even litters of pigs, their kind, moth-

erly instinct in caring for their young, and lastly their great milk-producing qualities, which we all know a sow must possess in order to raise a litter of pigs successfully. These points alone must commend them to all farmers as soon as their true merits are known.

When the Duroc-Jersey is once tried the farmer will have them and no other. When crossed even on the poorest hog, they stamp the young strongly, both in form and color, and the improvement is easily and plainly seen for generations. As a meat-producing animal they represent the pork as the Shorthorn does the beef. Their form is square, both behind and in front; legs wide apart, short and straight; broad backs; well-sprung ribs, giving them ample lung and heart power, making them capable of resisting many of the ills so common to our swine, and they show to the experienced feeder that they are built for the purpose of laying on meat for health to them and profit to the feeder.

My experience with them is that as breeders they surpass any kind that I have ever handled. Young sows farrow from eight to twelve strong, healthy pigs. I had a young sow last spring that, at twelve months old, farrowed twelve strong, healthy pigs and raised all of them. Experience has taught me that they will not succumb to that dreaded disease, cholera, as easily as some of our other breeds. Last fall I had forty sows running in twenty-five acres of woods pasture. There were four Berkshire, four Chester White, fifteen Duroc-Jersey and seventeen Polands in the lot. They commenced to die about the middle of October. The four Berkshires died, as did three of the four Chesters, twelve of the seventeen Poland-Chinas, and only one out of the fifteen Duroc-Jerseys. In several other different lots the results were about the same.

Let me say, in conclusion, I am not so egotistical as to claim that the Duroc-Jerseys greatly excel all other kinds of swine; but I am ready to recognize excellent qualities wherever found. Some breeders have them already with scarcely a blemish or a single living superior.

THE HOG IN THE SHOW RING.

(By W. A. Young, Butler, Ill.)

I shall not, in this short paper, attempt to discuss the merits of the different breeds of swine, or suggest the best mode of handling, feeding and fattening and keeping the hog in health, but shall confine myself to the "Hog in the Show Ring."

Without liberal exhibits both in quantity and quality a *fair* will not prove a success. In order to have a good display of any article it is necessary that good premiums be offered, good quarters be provided, and good judges be selected to make the awards. It is also important that the premiums be properly distributed.

At the last Illinois State Fair the total number of entries in Class "D" Swine were 799. Of these 312 were Poland-China, 98 were Berkshires, 78 Chester-Whites, 166 Duroc Jersey, 61 Essex, 23 Victorias, 38 Small Yorkshires and 23 other distinct breeds. From this showing it will readily be perceived that the Poland-China outnumber any other breed 2 to 1, and some of the other breeds they outnumber 13 to 1. Now the question arises, is it right that where there are only entries enough made by one breed to fill all the classes, as was done by the Victorias and Small Yorkshires, shall that small number receive the same amount of cash in premiums as the whole 312 Poland-Chinas, 98 Berkshires or 166 Duroc Jerseys? Would it not be better to distribute the premiums in proportion to the number of entries made in each breed, or increase the premium in the same ratio as competition is increased? Competition is as much the life of the "show ring" as it is the "life of trade." It is here that the breeders, feeders, farmers and hog fanciers meet, compare, talk over and discuss the merits and qualities of the animals on exhibition.

Here is a school of instruction, with object lessons presented of the most perfect types of swine in the world to study from. The evolution from the old original scrub or razor-back hog of a few years ago to the

present beautiful, well-formed hog to be seen on exhibition at our fairs of to-day is really marvelous. In order to produce the ideal show hog the breeder must begin with generations before, and by careful selection of sire and dam and proper care of same he may be enabled to produce just that kind of pig that he desires, or that which his fancy or fashion may dictate. How different in his makeup is the modern hog compared with his ancestors a few years ago. The hog of to-day grows fast, matures early, and by the time he arrives at six months of age his pignood ceases and he comes forth a full-fledged hog. Having been properly bred and properly fed, he is dressed up in his best suit and taken to the fair, where he is put on dress parade, and there he meets his competitors in the *show ring*; and here, whether in class, sweepstakes or breeders' ring, he is inspected and examined in all his points and parts, and receives his score of merits by an impartial and critical judge.

Style and action are essential qualities for a show hog, and condition and disposition should be well looked to in order to insure success. A hog, to show to a good advantage, should carry his weight well upon his toes; he should neither be too lean nor too fat, but should carry enough flesh to round him out smoothly in all his points, and in disposition he should be so trained that when he comes into the show ring he will be admired for his intelligence and docility. He should be nicely cleaned, his hair slightly oiled and brushed down, and, if he should be so fortunate as to carry off a blue ribbon, he will reward his owner with the grunt of satisfaction.

The results here obtained are evidence of what can be accomplished by the good judgment, industry and perseverance of man. If he who makes two blades of grass to grow where but one grew is a public benefactor, how much more so is he who can produce three pounds of pork in the same time that it took to make but one pound before.

ESSAY ON BERKSHIRES.

(By C. F. Boshart, Lowville, N. Y.)

England, from early times, appears to have been blessed with numerous provincial breeds of swine. Among those of importance we find the Berkshire, originating in Berks County, England. At what period these provincial breeds were formed, and as to the character of the stock from which they were derived, early history affords no information. Tradition states that swine were herded in England as far back as 863 B. C. How long previous to this period domesticated swine were reared and herded we have no means of ascertaining. What the forms of these ancient swine were, history does not tell us. The lapse of centuries has obliterated all traces of their primitive uncouth forms and characteristics.

The breeders of Berks county, England, bred, from generation to generation, a type which had been selected from stock of mixed origin, and crossed with more improved breeds, until the desired qualities which they wished to perpetuate had become fixed, and a breed was thus created. The Berkshires of a century ago belonged to the larger class of swine, and were easily distinguished by their color. The earliest writers represent them as buff, sandy or whitish brown, spotted with dark brown or black, having few bristles, and with long curly hair.

This early Berkshire was coarse in bone, large in head, snout comparatively short, jaw thick and ears heavy and drooping, and fringed with long, curly hair around their outer edge. Their backs were broad, bodies long, compact and well formed. The hams and shoulders heavy, with rather short legs, flesh well marbled, and the broad sides produced a bacon of superior quality.

History further tells us that the old, improved Berkshire was crossed with a black, or deep plum-colored Siamese boar. Other traditional historians assert that the black and white Chinese boar was cautiously used. That both crosses were judiciously used we cannot well question, and may well believe, as both in conformation and color this traditional Berk-

shire stock give evidence of both crosses. From the Siamese cross the Berkshire undoubtedly obtained its sandy or reddish-brown color, a better dished face, finer head, broader back and greater length of body, with erect ears. From the Chinese cross fineness of bone and conformation, with heavy jowls was the result, together with some change of color. As to the exact time when these crosses were first made we have no data. In the research into Berkshire history by the late A. B. Allen, he gave it as his opinion that it must have been more than one and one-half centuries ago.

The offspring of the above crosses were bred together, and, by the selection of the best for subsequent breeding, there was produced the breed as we find it, fixed and permanent in all its desirable points. From our earliest knowledge of the breed, the color and markings have been variable until the last quarter of a century. In 1842 Prof. Low portrays the Berkshire as "of a sandy or reddish-brown color, spotted with black, their feet and legs, for nearly their whole length, white, somewhat streaked on the sides and behind with reddish-brown." From 1850 color was bred more to one type, and coming to 1865 the general color was black, slate or plum, with white markings, while the size and shape remained the same.

Breeders began to prefer the darker color, and those pigs were selected which came nearest to pure black, with white on face, feet, tip of tail and an occasional slash of white on jowl or fore-arm, until the markings on the Berkshire had become fixed and permanent. In size they have been classed among the largest breeds for more than one hundred years. In 1807 one was exhibited by Sir William Curtis that weighed 904 pounds. Johnston informs us that in 1842 they weighed from 400 to 800 pounds, and some have been killed in England and the United States which dressed over 800 pounds.

The Berkshire of to-day, while differing from the Berkshire of a quarter of a century ago in color and markings, has diminished none in size, but has been much improved in uniformity of color, conformation, quality and early maturity. During the last thirty years all the undesirable qualities have been bred out and finer qualities bred in.

The functions of the individual system to produce likeness, with the aim and effort of the breeder to improve and perpetuate an individual offspring of a finer type than its ancestors, has been one of the steps which has led to the present superiority of the Berkshire breed.

In breeding, men have formed a type in the Berkshire of the present which for quality of meat, beauty of finish, profit in feeding and heavy weights at an early age has no peer, and stands without an equal as the standard breed of swine. Leaving the Berkshire of the past, we will examine the typical Berkshire of the present.

The following are the characteristics and markings of Berkshires as adopted by the American Berkshire Association:

Color—Black, with white feet, face, tip of tail, and an occasional splash of white on the arm; while a small spot of white on some other part of the body does not argue an impurity of blood, yet it is to be discouraged to the end that uniformity of color may be attained by breeders; white upon one ear, or a bronzy or copper spot on some part of the body argues no impurity, but rather a re-appearance of original colors. Markings of white other than those named above are suspicious, and a pig so marked should be rejected. Face, short, fine and well dished, broad between the eyes; ears generally almost erect, but sometimes inclining forward with advancing age; small, thin, soft and showing veins; jowl, full; neck, short and thick; shoulder, short from neck to middling deep from back down; back broad and straight, or a very little arched; ribs, long ribs well sprung, giving rotundity of body; short ribs of good length, giving breadth and levelness of loins; hips, good length from point of hip to rump; hams, thick; round and deep, holding their thickness well back and down to the hocks; tail, fine and small, set on high up; legs, short

and fine, but straight and very strong, with hoofs erect; legs set wide apart; size, medium; length, medium; extremes are to be avoided; bone, fine and compact; offal, very light; hair, fine and compact; skin, pliable. "Swine Husbandry," by F. D. Coburn.

In breeding the Berkshire has been perfected so as to develop those parts which command the highest prices, and what the brisket is to the beef steer the jowl is to the Berkshire—not valuable, but indicative of hardness and good feeding qualities. The hams and loins being the choice parts, the improved Berkshire is wide in back, with heavy hams, a large shoulder and a broad, deep side. The large shoulder is important for the full development of heart and lungs, and the broad, deep side furnishes the flesh, well marbled, with streaks of fat between the sweet, tender, juicy lean, which produces a bacon of unexcelled quality.

In size the Berkshire is one of the largest breeds. That heavy hog, Barry's Grand Duke 20759, of great scale and substance, is said to have weighed 1,050 pounds; The imported Fitz Curzon 30513 tipped the scales at over 1,000 pounds, and the boar, Lord Windsor 30461, which has received so much praise and admiration from breeders, tips the scales at over 900. The American bred boar, Black Knight 30003, who won first in his class and championship for boar at any age at the World's Columbian Exposition at Chicago in 1893, weighed 780 pounds when twenty-seven months old. That grand old boar, Longfellow 16835, who well deserves distinction as the greatest porcine sire the world ever knew, matured a thoroughly finished hog a few days under seventeen months of age, weighing 726 pounds. In the show ring this boar reaped a harvest in awards not soon to be equaled, and was pronounced a triumph of the breeder's art. His success has been so marvelous that his record stands as an illustration of the financial value of a high class sire. His owner sold 302 of his offspring, mostly small pigs, for the sum of \$14,014, an average of \$46.40 per head. Besides these, there were sold by him seventy-five sows, in pig from Longfellow, for the sum of \$5,575, an average of \$74.33 per head. From the first litter produced by Longfellow came the sensational boar, Model Duke 17397, who, at two years old, sold for \$750.

As to the weights obtained in matured sows, they reach between 500 and 800 pounds. The imported sow, Highclere B 30463, weighs over 800 pounds, and Number Seven 11055 attained a weight of 678 pounds after her usefulness as a breeder was over.

For early maturity and to fatten at any age, the Berkshire, either purebred or crossed on common stock, heads the list and stands pre-eminent above all breeds. Instances of the use of a thoroughbred boar to common sows, whose pigs dressed over 350 pounds in nine months from birth, has been noticed by the writer. The beautiful boar Enterprise 27957, when ten and one-half months old, weighed 463 pounds, and at twenty-three months old 652 pounds. King Lee 27500, "perfect in his form and rare in his finish," weighed 420 pounds when ten months old; 750 pounds at two years of age; and in only average condition, 820 pounds when three years old. Victor Duke 25715, a boar of superb quality and superior finish, weighed 850 pounds at twenty-two months of age. Handsome Prince 21147, a boar of fine head, good back and hams, weighed 700 pounds when twenty-one months old. The four young sows, Artful Belle VII, VIII, IX and X, all from the same litter, weighed 2,000 pounds when seventeen months old, an average of 500 pounds each. Romford XXIV 27954 weighed 535 pounds when twenty-two months old.

The Berkshire furnishes a hog of sufficient size and quality to compete in any market. Without prejudice to color, the feeder wants a hog that can eat and assimilate the greatest amount of food, over and above that required to maintain life.

In breeding, the digestive apparatus has not been diminished so as to impair the functions of the animal body. The breeder has moulded the Berkshire beautiful in conformation, with a fine but strong bony framework, capable of sustaining their heavy weight. From time immemorial we are informed of their easy keeping qualities and their readiness to

fatten at any age. Being of early maturity and free feeders they are desired by the farmers and feeders because of their development into heavy weights under one year of age, and thus bring quick returns from his surplus products. No breed can compete with the Berkshire in attaining large weights between eight and sixteen months of age, when one considers the amount of food required for each pound of growth. They supply the wants of the Western farmer better than other breeds because they are the hog best adapted to be raised in connection with cattle feeding, being good grazers with a hardy constitution and less susceptible to disease. While one section of the country demands a hog for a different purpose than another, the Berkshire meets the requirements of all. The Eastern farmer wants a hog of early maturity and quick growth to consume and utilize the skim milk of the dairy, the whey from the factory and such other products of the farm and kitchen as would otherwise go to waste. The Western farmer and feeder wants a hog active, with a strong digestive apparatus and great assimilating powers, so as to readily convert grain into meat.

In breeding the Berkshire the fattening qualities have been developed, not only to meet the wants of one section of the country alone, but a profitable feeder and quick grower for all sections. With a robust constitution and strong assimilating powers, climate has no deteriorating effects upon their excellent feeding qualities. For shipping long distances to market the Berkshire is preferred by shipper, as it carries more lean in proportion to fat than other breeds, the shrinkage is not so great. The packers prefer the Berkshire on account of its meat being better marbled with fine streaks of fat between the sweet, juicy lean.

Thus we pass to feeding trials conducted by W. E. Spicer, of Harvard, Neb., the substance of which I take from his catalogue. The aged sow Number Seven 11055, after being shown at the fall fairs, weighed, Oct. 7, 1888, at 4 p. m., 632 pounds. She was placed in a small open shed and fed corn meal, all she would eat, three times a day, soaked in water from one feed to the next, a feed of pumpkins two or three times a week, and on Oct. 14, at 4 p. m., she weighed 678, having gained forty-six pounds in seven days. The number of pounds of meal consumed during the seven days was estimated at ninety pounds.

In 1890, Romford II. 15790, was selected, and Sept. 30, 1890, weighed 491 pounds. She was placed in a yard thirty-two feet square with a house in it, and fed nothing but corn meal soaked in water for six hours, and consumed ninety-seven pounds of meal in seven days, weighing Oct. 7, 525 pounds, a gain of thirty-four pounds. On July 3, 1891, Romford XII 23094, weighed 484 pounds, and was then put on a ration of ground corn, oats, shorts and oil cake. In ten days she had consumed 160 pounds of feed and weighed 519 pounds, showing a gain of thirty-five pounds, being in heat the last three days. In the next ten days, July 13 to 23, she consumed 170 pounds of feed, and weighed 567 pounds, a gain of forty-eight pounds. In the next ten days, July 23 to Aug. 2, she weighed 611 pounds, a gain of forty-four pounds, having consumed 185 pounds of feed, with two pounds of milk each day during the last ten of the test. During the thirty days she consumed 515 pounds of feed with about forty-five pounds of water each day, and gained 127 pounds, with a loss of feeding, by being in heat during the test, of at least five days.

In temperament the Berkshire is quiet and gentle, the sows prolific breeders and kind and careful mothers, and the best of sucklers. Imported Majestic, 30459, when she entered the ring of aged matrons of unsurpassed excellence, at the World's Columbian Exposition, at Chicago, 1893, in competition for the highest honor a breeder strives to secure, with eleven little ones at her side three days old illustrates the prolificness of the breed and shows the animal to be a faithful breeder in show form, she winning second prize. These pigs were farrowed in October, 1893, and the following spring of 1894 Majestic proved her productiveness and value by being the proud mother of a litter of fourteen pigs, which are now growing to compete for future honors. Model 26493, to April, 1894, had produced five litters of pigs, forty-one in number, and out of

her 1893 spring litter four were winners at the World's Columbian Exposition. Model has always produced fine, even litters, with no culls, and the 1893 spring litter testifies to her sterling worth as a breeder. Romford X 23087, produced sixty-eight pigs in five litters, and some of the finest Berkshires in the show ring were farrowed by this faithful animal, who has won prizes at Omaha and Lincoln, Neb. Both in show form and ordinary breeding condition the Berkshires have proved their intrinsic value as prolific breeders, kind mothers and good sucklers.

To the improvement and perfection of the Berkshire the English breeders have led the way and laid the corner stone. Mr. John Brentnall, an English farmer, made the first importation into this country in 1823, and this stock was taken to his estate in New Jersey. The next importation was made by Mr. Sidney Haws, in 1832, and located by him at Albany, N. Y. Other importations were made by Haws, and in 1840 the Berkshires had found their way into the Western States and Canada. It was with imported stock that the sturdy American breeder strove to improve and modify to meet the wants of its people. The desire of the American people has been for sweet, tender, juicy, and well marbled smoked hams and bacon, with very little fat.

The Berkshire, improved and unimproved, was the favorite breed of the English, as they carried in substance those qualities most esteemed by the epicure. It is but natural that they found a welcome home on the American shore and their products a ready market on the block and with the shipper.

One considers a moment, and then asks: What has wrought these changes, so great in conformation and character, which places the Berkshire at the head of all breeds of swine? Is it by reason of the advance of science or the laws of nature?

An experienced breeder can readily read the character and disposition of an animal. A pig with a fine dished face is a quick feeder. The well dished face usually accompanies a large jowl. The pigs with a long, straight face are slow feeders and uneasy. To improve man must understand the science of breeding, the relation of parent to offspring. The law of similarity, "like produces like," is the fundamental principle in the improvement of a breed. Since it has become known that the parents transmit their characters to their offspring, the saying has been "breed from the best," which is one of the earliest and best maxims.

No power in breeding produces so great results as variation. Without variability nothing could be accomplished. Slight individual differences furnish a basis for producing new breeds. Having variability man applies the principle of selection and obtains either good or bad results, according to attention and habits.

These wonderful accomplishments in the perfection of the Berkshire breed has been wrought by men well versed in the science of breeding and the art of selection, possessing a natural ability to apply nature's laws, teachings and principles with a master's hand.—Berkshire Year Book.

HOW TO ADVERTISE BREEDING HOGS.

(By D. P. McCracken, Paxton, Ill.)

The first and most important feature, is to *have* what you advertize. A plainer way to put it would be, do not advertise for sale a quality you cannot furnish.

Do not "play" your customer for a "sugar teat," out of which the sweet is to be sucked, for depend upon it he will live to see you "chew the rag" out of which the sweet is gone.

If you have show hogs, *show* them; and the ribbons will speedily advertise the herd. If you are so situated that you cannot show your herd, you will need to buy animals that have a show record, that your intending purchaser may realize the truth of your claims to quality.

You say, Oh! but show hogs are frequently inferior as breeding hogs. True in some cases, and a first rate plan is to buy a hog with an established breeding reputation, but take along your check book, for he will make a large sized vacancy in your bank deposit. Fitting and showing need not damage the breeding qualities of a yearling or two year old, one iota, to substantiate which I could mention numbers that have achieved distinction in both capacities. Conditioning a hog for breeding service, and so called "reducing," are two very different things, the discussion of which would alone make a lengthy paper. Perhaps you have the skill to breed show hogs and depend upon your customers to show them and thereby add to the reputation of your herd. I have in mind just such a breeder. Whatever plan you pursue, take this into your calculations, that unless show-yard merit crops out of your herd in one way or another, you need never expect a secure seat on top the wheel of fortune, for

The delight of Dame Fortune—
Fickle old girl,
Is to give the light head the
Dizziest whirl.

Since the program of this meeting was mailed, I received a letter from a prominent breeder asking that I should express myself in this paper, upon the advisability of paying fabulous prices for hogs without show record, depending for advertisement, upon the cost price. You see he has spread a net for my unwary editorial feet. I am not "forninst" high prices. The only reason I never sold a hog for \$2500 was, because I never owned a hog that was worth it. I sold a rooster once for \$25, but the man didn't buy him to fry. When I read that so and so paid a long price for a hog with a great breeding reputation, I know he has every reason to expect good returns from the investment, because the very reputation of the hog will bring returns, even should he prove later to be but an ordinary breeder. When I read that so and so paid a long price for a hog with neither show nor breeding record, and am aware that so and so is not only a reputable breeder, but a thoroughly competent judge of a hog, I know he got value received, the fact of *his buying* it justifies the conclusion. But when I read that so and so paid a long price for a hog with neither show nor breeding record, and am aware that so and so has no practical knowledge of a hog, that he never exhibits his stock, that those who buy stock of him never win, and that he expects to depend alone upon the boom of the cost price, together with what he shall say of his herd through the stock papers, to make sale of his stock at such figures as would justify such outlay, I am forced to the conclusion that as Washington Irving says, he will will "wake up in the morning and find himself dead."

Select and handle a breed you believe the best, and stand by them through *thick and thin*. The hog breeders tells a story as follows: A sheep breeder dreamed he died and went to heaven; on awakening he said to his wife: Ann, that settles it! I go out of the sheep business. Why? . Because even in heaven the hog men all have the front seats.

If you have a *show* pig for sale, call it a show pig. If you have a good plain, substantial pig for sale, describe it as a pig of good quality. But avoid the habit of never breeding anything but *Jim Dandies*, World Beaters and Cracker Jacks. It has a tendency to dull the market.

If you expect to sell your goods you must advertise. You say when, where and to what extent? When? All the time, if it were only to say "no more stock for sale till July." Where? In the stock and agricultural papers, because all progressive farmers and stock breeders read these papers, and unprogressive farmers have no use for your stock. To what extent? According to the requirements of the case. If you have ten or a dozen to sell, a small advertisement in two or three papers covering your territory will likely do the work. If you have 100 to 200 head to sell and wish to do so expeditiously, you will have to make extended mention of them in several papers, which of course will cost proportionately more. You can't catch a whale with a cat-fish hook. The quality of your stock and your methods of dealing should be known to the management of the papers in which you advertize, that they may the better

recommend you to their readers. Word your advertisement so as to be attractive. I read an advertisement lately that fixed a certain man's goods forever in my mind at the first reading. It ran thus:

"Hark! the herald angels sing,"
Carter's Pills are just the thing,
"Peace on earth, and mercy mild,"
Two for man and one for child.

Word your advertisement plainly. Have a name for your herd or some designating feature or sign. I know the very word sign makes a newspaper man squirm, but signs attract attention.

A couple came out of a furniture house with a new baby carriage and placing baby therein proceeded up town. They hadn't gone far when Mary stopped with—John, is my hat on straight? Yep.

Any of my skirts loose? Nope—Why? Cause, everybody is tittering. John got out in front and found a sign on the front of the carriage, "Our Own Make.

If you expect to sell at public sale select your own date, and the papers in which you intend advertising, give them your date, and promise them a share of your work, which will privilege you to friendly notice from time to time.

Have your advertisements appear at least twice in each paper, and furnish the editor with the material from which to speak of your herd editorially, in case he has never inspected it. Select an auctioneer that *never—hardly ever* tells a lie; and remember that

The man who by his biz would rise,
Must either *BUST* or advertise.

HOW TO SELL BREEDING HOGS.

(By John D. Waters, Mechanicsburg, Illinois)

How to sell hogs largely depends on what kind of a herd the breeder has to sell. The best way to dispose of some herds that I have seen is to thoroughly fatten them for the Chicago market, as they were worth more for the pork-barrel than for anything else. But to all breeders that have a herd of hogs fit for breeding purposes, of any breed, depends on how his herd is bred and what condition his herd is in and at what time he wishes to dispose of them. My opinion is, with all our best herds of hogs of any breed, and of the Poland-China especially—as I think there are more good herds of them than any other breed—is to dispose of the surplus fit for breeding purposes at public sales, and if it should be that one breeder has not a large enough herd to pay him to have a public sale, he should get some one or more of his neighbor breeders to join in and have a combination sale. By this method the expenses can be reduced within the reach of all breeders; and such sales should be based on regular business principles, without any straw-bids or by-bids whatever (the highest bidder to be the buyer). In this way get the present crop of pigs out of the way at once and make room for the coming crop; besides, it brings all his money and notes together, so it is of more benefit to a person than when it comes in small showers. I am both pleased and proud to see how much we have improved our herds of hogs of all breeds, and of the Poland-China especially, in the past twenty-five years. I feel sure that all my brother-breeders will agree with me to use more care in culling his herd closer than he has ever done in the past years of breeding, so that we will be able to greatly excel our herds of to-day, and of our male pigs at least. In our public sales I believe that we as breeders should not put more than one male pig out of every five at least in a sale, and one out of every ten would be all the better, and feed the others for the market. By so doing we will be able to get a great deal more money for our breeding boars at public sale, or by private sale either. I consider that every breeder and farmer should regard his breeding boar worth more money than anything else on his

farm, as he receives more money from his produce in one year than of any other breeding animal on the farm. I also do not consider it too high to say that he will sire you at least \$2,000 worth in one year and often much more, and by this only keep the best, as the best is none too good. And he should have the best care of any animal on the farm. I think one male hog is undoubtedly enough for at least ten sows. According to this estimate we do not need so many males; besides, those pigs used for the market will make the very best feeders, the top sellers on the market, and will bring a much larger average per head than at public or private sale. I have often heard it said that they make good cheap boars for the farmers. That is partly true, but I think any farmer would be better off without a cheap boar, and will soon learn that the best is the one he wants and which will make him more money in the end.

As to the breeding sows, I also think they should be sorted closer; but, as a rule, I think sows run better than the males in most of the herds and more of them can be used for breeders than the males.

In regard to selling hogs either privately or publicly, every breeder should advertise well in all the leading agricultural papers, also the herd should be catalogued in due time and a copy sent to each breeder and friend.

If the breeder wishes to have his sale before the breeding season, I think that he should sell from September 1 to November 1, as most breeders wish to procure their breeding stock for the coming year by that time.

Before the sale all necessary arrangements should be made. First, have the hogs to be sold in good breeding condition, and have them placed in plenty of lots or pens, so that the buyers can have the opportunity of selecting those which are most suitable to them before the sale begins.

The breeder should have his farm and surroundings in perfect order as much as possible, for it adds greatly to the appearance of his herd.

I also find by experience that it is best to have the crowd seated, as they find it so much more comfortable.

It is also best to sell under a tent or enclosure of some sort, as it protects the crowd from the burning rays of the sun or the rain if it should be a wet day.

It is also necessary to keep the hogs coming into the ring as fast as they are sold, so that no time will be lost in waiting for others to come.

I find by experience that it always pays to have a good lunch before beginning the sale—a lunch of the best kind, and plenty for all; for when a man feels good he will generally, if not always, do anything within the bounds of reason; but if he is feeling badly it is pretty hard to do anything with him at all.

If all these rules (if they be so called) are complied with and the auctioneer knows a good hog when he sees it and knows how to handle his bidders in the right way and at the right time, both the breeder and auctioneer will be pleased with the prices obtained.

But I am of the opinion that the breeder of all first-class herds should always have the credit of all the good prices obtained, instead of the auctioneer, as the herd that is bred right and of the right kind of individuals will always sell for long prices.

I have known some auctioneers to get great credit for the prices obtained when it was the way the herd was bred and the reputation that the breeder had instead of the auctioneer.

My advice to all breeders is to use better judgment and more care in the future than we have in the past and we will surely have no trouble in obtaining good prices for each animal fit for breeding purposes and for the market.

CONSTITUTION ILLINOIS SWINE BREEDERS' ASSOCIATION.

PREAMBLE.

We, the undersigned breeders of swine, recognizing the importance of a state organization having for its object the promotion of the interests of the breeders and feeders of swine, do hereby unite in forming an association to be known as the Illinois Swine Breeders' Association.

ARTICLE I.—NAME.

This organization shall be known as the Illinois Swine Breeders' Association.

ARTICLE II.—OBJECT.

The object of this Association shall be the holding of annual meetings for the discussion of all matters relating to breeding and feeding of swine, the holding of exhibitions, and such other work not in conflict with the spirit of the constitution as in the opinion of the Association may tend to promote the best interests of its members.

ARTICLE III.—MEMBERSHIP.

The membership of this Association shall consist of the original subscribers, and such other reputable citizens of this State interested in swine husbandry, as may be approved from time to time by the Executive Committee, and pay one dollar annual dues.

Should it occur at any time that any member of the Association shall be charged with willful misrepresentation in regard to any animal owned or bred by him, or with any other act derogatory to the standing of the Association, or with failure to comply with the rules and regulations of the Association, the Executive Committee shall examine into the matter, and, if it shall find that such charge is fully sustained, it shall thereupon suspend such offender and lay all the facts in its possession before the Association at the first annual meeting thereafter. If, in the opinion of two-thirds of the members present, the facts shall so warrant, the name of the offending member shall be stricken from the rolls of the Association, and all his rights as a member shall thereupon cease.

ARTICLE IV.—OFFICERS.

1st. The officers of this Association shall be a President, Vice-President, Secretary and Treasurer.

2nd. The President, Vice-President, Secretary and Treasurer, with five additional members to be chosen by ballot at the annual meeting, shall constitute an Executive Committee, with power to manage the affairs of the Association during the intervals of the annual meetings.

3rd. All the officers of this Association shall be elected by ballot at the annual meeting, and shall hold their offices for one year, or until their successors are duly elected and qualified.

4th. At all meetings of the Association, members may vote in person or by proxy, or they may send their ballot by mail to the Secretary, whose duty it shall be to vote the same as directed.

5th. Any vacancies occurring during the *interim* may be filled by the Executive Committee.

ARTICLE V.—MEETINGS.

1st. The annual meeting of the Association shall be held at such time and place as may be designated by the Executive Committee, thirty days' previous notice to be mailed to each member of the Association, giving time and place of the meeting.

2nd. The Executive Committee shall hold meetings on the call of four or more of the committee, a majority of the committee to constitute a quorum.

ARTICLE VI.—DUTIES OF OFFICERS.

1st. The duties of the officers and the Executive Committee shall consist of such service as generally pertains to their respective positions in deliberate bodies.

2nd. All bills against the Association shall be presented in detail, and shall be paid only on the order of the President and countersigned by the Secretary.

ARTICLE VII.—AMENDMENTS.

This constitution may be amended or changed or any other business transacted at the annual meeting with the approval of a two-thirds' vote of the members present.

1895 BULLETIN

ILLINOIS FARMERS' INSTITUTE.

A conference of delegates duly called and representing the various County Institutes, was held in the Dome Building on the Illinois State Fair Grounds, Tuesday, September 25, 1895.

At said conference the following resolutions were adopted:

WHEREAS, The Illinois Farmers' Institute has perfected its organization in accordance with the recent act of the General Assembly; and,

WHEREAS, Said State Institute can greatly assist County Institutes in the preparation and publication of programmes of meetings; therefore, be it

Resolved, That the State Institute be requested to prepare a bulletin containing the outline of the work contemplated in the holding of institutes during the coming season, and that said bulletin be furnished County Institutes at nominal cost.

Resolved, further, That it is the sense of this conference, that it will be to the advantage of County Institutes to use the bulletin prepared by the Illinois Farmers' Institute.

In compliance with above resolutions, a bulletin was prepared and in which the following papers were published:

FARMERS' INSTITUTES.

(By Charles F. Mills.)

It is an established fact that as the masses of the people become better educated in all matters pertaining to their occupation, the greater is their success in business, and the wider their influence in social, political and commercial circles.

As a means of promoting the best interests of the farmers and calling the attention of the agricultural classes to the improved methods adopted by most successful husbandmen, Farmers' Institute meetings have been found to be invaluable agencies.

The legislatures of this and other states have recognized the necessity of Farmers' Institute meetings by making liberal appropriations for their support.

I will give some reasons why I think Farmers' Institutes are of importance and should be attended and participated in by all interested in rural husbandry.

First—Because they furnish a source from which practical information in reference to the details of conducting the most advanced system of agriculture can be disseminated.

Second—They stimulate a pride which will demand respect for the occupation of the farmer and cause him to take an advanced position in the discussion of many important matters. All lines of trade and occupa-

tions are associated for the protection of their respective interests, while the farmer is hesitating in completing organizations having for their object the promotion of the general good of the producing classes.

No friend of agriculture favors organization for the purpose of antagonizing any other interest.

Co-operation in developing an interest of such magnitude as agriculture will command general respect. Civility in action, self-protection and self-respect are cardinal virtues which are certain to win favor in the end.

Third—As the particles of sand and pebbles on the shore are rounded and polished by friction with each other, so is the human mind made more brilliant in action, more social and attractive in the walks of life, by the friendly meeting and commingling together of those interested in the varied pursuits of life.

We are in advance of all civilized countries in that direction. In Europe the agriculturist occupies an inferior place in the social world compared to the position so freely accorded the farmers in the United States.

The railways, which I will style the great arteries of civilization, have done much in producing these results.

They have furnished the means of rapid transit and made social meetings of all kinds possible and convenient, and it is not without regret that I hear some farmers talk of antagonizing these agencies which have developed our wealth and civilization more than any other.

Fourth—Farmers' Institute meetings furnish a valuable means of giving publicity to the most advanced theories of farming. There is no hidden mystery of success in any occupation, when the effort is directed by a mind stored with practical knowledge of the subject. Good luck is the accidental result of chance, while success is the result of intelligent effort.

The few who refuse to investigate the facts presented in the papers read at an institute meeting will be benefited but little by attending, but to those who desire information and are interested, the results attained by the scientific and experienced agriculturist, as well as a more intimate knowledge of the methods adopted by the successful breeder in improving and maintaining the excellence of our domestic animals, institute meetings will be as banks of deposits for knowledge relating to all departments of farm life, that may be drawn upon freely by all in attendance, in future years.

Fifth—They are organized for the purpose of producing better crops, for further improvement of live stock, and the securing of better prices, which will make us all more contented and happy. When the farmer is prosperous the sun of happiness shines much more cheerfully in his quiet home; contentment and good will abide with him; his children have more extended opportunities for securing education, and their social life is correspondingly improved.

Sixth—They who till the soil are the base upon which rests the foundation of all wealth, and, as I have said, when they prosper all are alike benefited.

The farmers in our country produce more than grain, fruit, live stock, etc. They produce the larger portion of the brains that rule our nation, control our finances and do the general business of the country, and these meetings should be made debating schools for the sharpening of ideas and developing the mind on all subjects of special interest to the farmer. Discussions of this character insure a proper recognition of the dignity of the farmer's calling, and encourage the children to continue in the occupation of their parents.

Before I close, I wish to impress on every one that these meetings are not held in the special interest of any one class of farmers and citizens, but for the purpose of bringing active and practical men and women together in consultation as to the best methods for promoting the common interest of all

The greatest freedom of speech should prevail throughout the meeting, and on all subjects presented there need be no hesitation in asking questions. When an author presents a paper it contains the ideas of the writer in a condensed form, but in answer to questions the author can usually explain in detail other equally important facts of general interest. More information can often be had by questions and discussions after the paper is read than is contained in the document itself.

Parties will be in attendance who come a long distance to take part in the work of the meeting, and it is suggested no time should be lost in the discussion of political hobbies or exploded theories of no practical benefit to any one.

SUGGESTIONS FOR PROMOTING AGRICULTURAL EDUCATION.

(By Eugene Davenport, Dean Agricultural College)

The term "Agricultural Education" is with us to stay. It must be defined to mean the whole training of rural people, not the agricultural or technical portion of that training only. The distinction is important. The term has been so generally taken in a technical sense that the idea has almost become fixed that the proper education for a farmer is one of information concerning the details of his profession, with little or no thought for any other. And why, forsooth? Is not the farmer a citizen like other men?

Every man's education is of two sorts. The technical, which fits him for success in business, and a general which fits him for success in life. The first is peculiar to his trade or calling, the second is common to all humanity, at least of similar grades of civilization and under like conditions.

Are the farmers' needs different from those of other men? Is he not, first of all, a citizen? Was he not a man before he was a farmer? It must be written down as axiomatic that the farmer's education differs from that of others only in the technical portion, and that no man is educated to a useful life who has not received some sort of technical training, whereby he may make his existence useful.

There are trades so poorly remunerative that only the technical training can be afforded, but farming is not in this list, and will not go there unless we invite the conditions by habitually forgetting all but the technical.

I would therefore urge as the first great principle in agricultural education that he who has the management should see to it that the boy or the girl is getting both a liberal and a technical training out of the experience and the time of childhood and young manhood or womanhood.

These both must be had partly from books and papers, and they cannot be too wisely selected. Here the children of our farmers are often at a disadvantage compared with the city cousin and the public library. But the difference is more apparent than real, for it is undoubtedly vastly better, particularly for the young, to read a few good books well, than to succumb to the temptation that is so strong in the presence of so many books to become an omnivorous reader.

Again, both kinds of education will be had very largely, and are undoubtedly most firmly implanted through the medium of daily experience and contact with people and things. As we are thoughtful and careful about his human associates, so should we be particular about what we may call the professional surroundings of the young. Every boy and girl should be educated to be on good and friendly terms with the business side, the technical life, if you please, of the family in which he or she is growing up. It matters far less whether he or she afterwards learns and follows another.

The great advantage of the country child is that he gets education in daily contact with a business life, while the child of a city broker may never come in contact with any industry, and may come to man's estate,

more often of woman's, almost in ignorance of the existence of the busy business world and its methods by which alone the world lives and moves ahead.

How, then, shall we inspire the proper regard for the technical life of the farm? It is potent for great good, but badly managed does great harm. Many a boy is set apart as not "cut out for a farmer" when the trouble is he has been allowed to develop a distaste for industry as a whole, which was mistaken as a dislike for farming in particular.

Briefly then, enlist the best efforts of both boys and girls in the business activity of the farm and its home. How? Let each individual child have some one duty that is his, and his or her's only, and let it be known who is to have the credit for success or must answer for failure.

Later, give actual ownership in some small interest in the farm, and when this interest succeeds show evidence of it at the fairs, in his or her name, not yours. This is better for both father and child. It is vastly better to raise a boy that can show a premium pig, than it is to have reared and fed that pig yourself. He exhibits the pig and you exhibit the boy.

At the Institute lead and encourage the young to give expression to the knowledge they have gained. The last stage in the process of education is for that boy to tell how he fattened that pig for the fair.

After all, the blundering experiences and awkward failures of the young are not greatly different from those of the rest of us, and their value is too largely underestimated.

When the young have had a few successful experiences and have learned to know and to tell why they are successful, the foundation is laid and a taste is formed for more. Then place in their hands standard books and direct their attention to schools of higher education. Begin with THINGS, and lead up to THOUGHTS and SYMPATHIES, and we shall have the kind of agricultural education we really need.

ADVANCED AGRICULTURE.

(By J. W. Judy, President Illinois State Board of Agriculture.)

Since the value of Illinois land is from seventy-five to one hundred and twenty-five dollars per acre, it is very necessary that the manner of cultivation should be materially changed from the mode of farming when the prairies were first broken and the soil was new and fresh, and noxious weeds were scarce. The farmer with his two-horse plow, in the spring of the year, say in the month of May, would go into his field and plow his land, turn around and plant the same, and then go hunting or fishing; then, after a while, would cultivate after a fashion, and the result would be thirty to fifty bushels per acre. Not so now. In order to produce such crops as our land is capable of, many things must be considered—the fertility of the soil must be maintained, the cultivation must be judicious and at the proper time. How will you maintain the fertility of the soil? I would say by rotation of crops. Corn one year, oats one year, wheat one year, in the order named, and never seed your land to wheat without sowing five pounds of red clover seed to the acre, sowing the clover seed in late winter or early spring, one of the late snows in winter being a good time, if winter wheat; if spring wheat, sow just after seeding to wheat. I think there is no fertilizer equal to red clover in the world, for our Illinois lands. Besides it will produce a good crop of hay and a valuable crop of seed each year; or it can be used for grazing, especially in the hot, dry months of summer. Now if you will add two or three years in clover with the crops named above, it will be all the better for the land.

Now in regard to cultivation, all land that is intended for corn especially, should be plowed in the fall, say in October, as the hot sun of August and September is considered injurious to freshly broken land. Thus the land is in good condition to receive the cultivator or disk, then

the harrow. The land should be thoroughly pulverized before planting; in fact, full half of the work necessary to produce a full crop should be done in the preparation of the ground before the corn is planted, then cultivate shallow, and the result will be from seventy-five to one hundred bushels per acre.

Now in regard to the grasses. When it is intended for land to remain in pasture for grazing for a considerable length of time, if the situation is such that it can be done, it should be thoroughly prepared for a wheat or rye crop and seeded to same in September, and in the winter following, when there is snow on the ground, mix your grass seed, timothy two-thirds, clover one-third, add to each bushel of the above three pounds of blue-grass seed, and sow one bushel of the timothy and clover seed to five acres with the blue-grass added, and if the season is favorable you will be sure to have a good catch of grass, but much depends upon the season.

There are many other interests to be considered to make farming a success. All the stock on the farm should be of the best quality, whether horses, cattle, sheep, swine or poultry. Have them pure bred if possible, then with good care and liberal feed and plenty of kindness in the way of petting, which is very essential with all domestic animals and will give great satisfaction and much profit to the man who will follow it up closely, and if the farmer will carry his petting and special attention into the home and bestow a liberal share upon the wife and children, and if he has never done so before, he will be astonished how much satisfaction and solid comfort he gets out of this course of treatment, to all concerned, and will begin to appreciate the idea of advanced agriculture.

FRUIT FOR FARMERS' FAMILIES.

(By T. E. Goodrich, President Illinois Horticultural Society.)

The fruit interest of Illinois, when taken as a whole—its commercial and medicinal—are second to no agricultural interests of the State. Its commercial value reaching into the millions; its medicinals beyond computation.

If one needed proof of the skill of Illinois farmers, none other need be given than an examination of the superb exhibits at the last State Fair.

The output of her fields and pastures were the equals of any state in the Union.

Farmers have grain in abundance. How about fruit? On how many farmer's tables can fruit be found half the days in the year?

What per cent. of farmers boys have all the apples they can eat?

Why should not the farmer's family have as regular a fruit supply as the doctor's or the merchant's?

As an excuse and justification, some one may say, "fruit does not do well, and can't be grown where I live." I beg your pardon, sir, but fruit will grow wherever corn will. There is not a single square rod of Illinois that will not grow fruit of some kind, either tame or wild. Scarcely a square rod of the grand old Prairie State but that will grow a fruit tree. The item of cost need not bar the farmer from a supply of trees and plants. The sum of one dollar a year for three years, sent to any good nursery, will secure an abundant supply of small fruit plants. The addition of two dollars a year for four years will buy a supply of all kinds of fruit trees and grape vines.

Good trees are selling for 3½ cents a piece—they were never so cheap before. An average day's work will pay for at least twenty-five. A bushel of corn will pay for seven trees. The product of an acre will plant an orchard. Could a better investment be made? But you say fruit fails some times! Yes, so does corn and wheat.

If I were to consult my own interest it would be to encourage farmers to buy their fruit of me, or some one else who was growing fruit as a business. If I counselled in his interest it would be to grow his own.

Doctors and others in a position to know, say farmers do not consume enough fruit. If so, the fault is in a great measure their own. They have the soil, animals and tools to cultivate it. Would not a boy be brighter and happier if he carried an apple to school in his pocket every morning? Would not the memories of youth on the farm be brighter in after years, if they clustered around scenes made happier by the sun kissed fruits and flowers of tree and vine?

Then plant. No skill, did you say? Then plant; begin to care for, read the papers, and skill will soon follow.

THE DAIRY INDUSTRY.

(By John Stewart, President Illinois Dairymen's Association.)

One general suggestion for institute programmes is that dairy topics, like those of other departments, should not be presented in long papers requiring so much time, and demanding closer attention than the average farmer is willing to give. Let the subjects be opened with a carefully prepared but short address, and followed by a free discussion.

An important subject for consideration is the best division of the farm lands for dairy purposes, the proper condition of barns, water supply, and all the necessary dairy surroundings.

Other suitable topics would be:

1. The selection of a herd of cows.
2. It is better to feed heavily and force the cows for milk, using them up in a few years, or to feed moderately and milk them longer?
3. Should we crowd our farms, keeping more cows than the land will feed?
4. Is ensilage hurtful to milk?
5. Shall we raise our own cows, or sell our calves and buy cows from the western states?
6. Is Jersey milk profitable for shipping to Chicago?
7. What is the best method of placing our milk on the market? Should we be satisfied with the present system, in which the farmer furnishes milk, milk cans, and pays the freight, and the dealer makes the price and remits when he gets ready?
8. Should we not work for and insist upon State legislation in behalf of pure milk, butter and cheese?

APPENDIX.

ANNUAL REPORTS COUNTY FARMERS' INSTITUTES.

The programmes of the meetings of County Farmers' Institutes held in Illinois during the past season contain information of great value to the Institute workers of the State.

The reports of County Institutes furnish an interesting study of the topics receiving attention of the leading farmers in all portions of the State, and contain the names of speakers best qualified in the respective localities to discuss said subjects.

The arrangement of the programmes, the numerous subjects presented for discussion at the County Institute meetings and presented in the following reports will suggest many improvements that can be made in the announcements for future meetings to be held in a number of counties in the State.

The history of the various County Institutes is briefly outlined in said reports, which contain not only the time and place of previous meetings, but the names of the gentlemen in charge of the late and succeeding Institute.

The brief time for collecting photographs and having electros made for use in connection with said county reports has deprived the County Institute workers of the State of the great pleasure of looking into the faces of many excellent promoters of the Institute work in counties that have received great benefit from the holding of such meetings for a term of years.

Bond County Farmers' Institute.



IMBERT H. DENNY, President.

Evening session, 7:30 p. m.

Prize essays on fruit. Contest open to the school girls of Bond county. First prize, \$3; second prize, \$2.

Adjourned.

THURSDAY, SEPTEMBER 18, 1896.

Morning session, 10 o'clock a. m.

Address of welcome, by D. H. Williams. Music. Remarks by J. F. Harris, county judge.

Afternoon session, 2 o'clock p. m.

Music. "Our Boys," Dr Stoddard, of Ramsey, Ill. Song. Remarks by W. W. Lewis, editor Greenville Advocate, Greenville, Ill.

FRIDAY, SEPTEMBER 19, 1896.

Morning session, 10 o'clock a. m.

Song and prayer. Benefits and Necessities of Farmers' Institutes, by John Hartley.

Afternoon session, 2 o'clock p. m.

Music. Farming as an Occupation, by Judge Burroughs, of Edwardsville, Ill.

We have held each year a Fair in connection with our institute, which has proven very satisfactory. It gives a greater variety of attractions, and brings people out that would not otherwise be reached.

The next meeting of the Bond County Farmers' Institute will be held at Sorento, Ill., Thursday and Friday, September 27-28, 1896, under the directions of the following named officers: President, Imbert H. Denny; vice president, E. P. Gracey; secretary, J. H. Grigg; treasurer, F. Dressor; board of directors, John Hartley, president, W. C. Gracey, E. W. Denny, C. W. Garrison, Rufus Cruthis, F. W. Burham and George Homes, members of board.

The Bond County Farmers' Institute was organized in 1894, and institutes have been held at Sorento as follows: September 27-28, 1894; September 18-19, 1896, having for its officers the following named gentlemen: President, Imbert H. Denny; vice president, E. P. Gracey; secretary, J. H. Grigg; treasurer, F. Dressor; executive committee, John Hartley, president, Rufus Cruthis, F. W. Burhorn, C. W. Garrison, E. W. Denny, W. C. Gracey and J. F. Whitworth, members of board, all of Sorento, Ill. Following is the programme for the first meeting:

THURSDAY, SEPTEMBER 27, 1894.

Morning session, 10 o'clock a. m.

Music; prayer, Rev. G. W. McWhorter. Sorento, Ill. Address of welcome, by D. H. Williams, superintendent of schools, Sorento, Ill. Music.

Afternoon session, 1:30 p. m.

Music. The Benefits of an Agricultural Education, by County Superintendent J. C. Blizard. Cultivation of Small Fruit, by John Hartley, of Reno, Ill.

FRIDAY, SEPTEMBER 28, 1894.

Morning session, 10 o'clock a. m.

Song and prayer. Address, Canning Factory, D. H. Williams. Music.

Afternoon session, 2 o'clock p. m.

Cultivation of Small Fruit, by J. L. Johnson, of Pocahontas. Discussion. Music.



J. H. GRIGG, Secretary.

Champaign County Farmers' Institute.



C. DYER, President.

Evening, 7:30 o'clock.

What I Know About Flowers, Mrs. Dr. J. E. Morrison, Urbana. Fruit and Flowers, Dr. T. J. Burrill, U. of I.

Wednesday morning, 10 o'clock.

Farm Crops; Reasons for Rotation, I. S. Raymond, Sidney. Farm Crops; Value of Rotation, T. P. Chester, Champaign. Sheep, their Value, Care and Management, Hon. Jacob Zeigler, Clinton.

Afternoon, 1:30 o'clock.

Subsoiling; Its Effects on Soil and Crop, C. A. Shamel, Editor Orange Judd Farmer, Chicago. Fruit on the Farm, Hon. H. M. Dunlap, Secretary State Horticultural Society, Savoy.

The next Institute will be held at Rantoul, January 22 and 23, 1897, under the auspices of the following officers, viz.: President, C. Dyer, Mahomet; secretary and treasurer, Z. R. Genung, Rantoul, Illinois.

The Champaign County Farmers' Institute was organized in Champaign, 1891, and an Institute was held at that place January 7 and 8, 1891, and January 19 and 20, 1892, at Homer; February 4, 5 and 6, 1893, at Rantoul; February 23 and 24, 1894, at Fisher; January, 2 and 3, 1896, at Champaign, and in 1896, at St. Joseph, January 2 and 3, and at Urbana, February 25 and 26, under the management of C. Dyer, Mahomet, president; Z. R. Genung, Rantoul, secretary and treasurer. The executive committee were: O. W. Maddock, of St. Joseph; F. M. Fanley, of Urbana; J. M. Love, of Sidney; J. A. Hossack, of Savoy, and Isaac Peters of St. Joseph.

The programme of the Institute held in Urbana, February 25 and 26, is as follows:

Tuesday morning, 10 o'clock.

The Vegetable Garden, L. G. Hubbard, Urbana. Potatoes, John D. Beasley, Hensley.

Afternoon, 1:30 o'clock.

Poultry, D. P. McCracken, Paxton. Can Country Homes be Made Attractive? Mrs. W. W. Newman, Clinton. Corn, E. S. Fursman, El Paso.



Z. R. GENUNG, Secretary.

DeWitt County Farmers' Institute.



W. S. HARROLD, President.

WEDNESDAY, JANUARY 22, 1896.

Morning session, 10:30 o'clock a. m.

Prayer, Rev. J. B. Weber. Instrumental solo. Recitation. How to Make Good Roads, J. B. Bryant. Discussion, Jno. Cusey, James Knott and others. Clover; its Value, by H. D. Watson.

Afternoon session, 1:30 o'clock p. m.

Music. How and When to Sow Clover, by Charles Hurd, of Wapella. Discussion, H. M. Morris, James Knott. Value of Corn, H. C. Cline. Can Corn be Produced Profitably at 20 Cents per Bushel? James Knott, C. H. Moore, N. M. Barnett, G. W. Parker.

Evening session, 7:30 o'clock p. m.

Music. Recitation. Address, The Agriculture of Illinois and the State University, by Dr. A. S. Draper, of Champaign, Ill.

THURSDAY, JANUARY 23, 1896.

Morning session, 10:30 o'clock a. m.

Prayer, by Rev. M. W. Everhart. Recitation. Benefits of Fruits, by Hon. H. M. Dunlap, of Savoy, Ill. Benefits and Best Method of Spraying, by Edwin Weld, Jr. Discussion.

Afternoon session, 3 o'clock p. m.

Vocal solo. Recitation. Vocal solo. The Importance of Maintaining the Fertility of the Soil, by Emerson Hartsock, Lane, Ill. How to Maintain the Fertility of the Soil, W. A. McKonkey. Sheep; Their Value, Oscar Bonnett.

The next meeting of the DeWitt County Farmers' Institute will be held at Clinton, January 18, 19 and 20, 1896, under the following management: President, W. S. Harrold, Wapella, Ill.; Mrs. W. W. Newman, vice-president; C. M. Hartsock, secretary, Clinton; C. Y. Miller, treasurer, Maroa, Ill.; executive committee, Edwin Weld, Jr., Emerson Hartsock, Samuel Newell, Mrs. Chris Morris, Mrs. M. R. Colwell.

DeWitt County Farmers' Institute organized in 1890, and institutes have been held at Clinton as follows: In December, 1891; January, 1892; January 31, February 1 and 2, 1893; January 16, 17 and 18, 1894; February 5, 6 and 7, 1895, and January 21, 22 and 23, 1896. The last institute was held in the Court House January 21 to 23, 1896, inclusive, under the following management: President, W. S. Harrold; vice president, H. D. Watson; treasurer, C. Y. Miller; secretary, C. M. Hartsock; executive committee, Mrs. W. W. Newman, Mrs. M. R. Colwell, Messrs. F. M. Palmer, H. D. Watson and Jacob Ziegler. The programme of the institute meetings held January 21, 22 and 23, 1896, is as follows:

TUESDAY, JANUARY 21, 1896.

Morning session, 11 o'clock a. m.

Music. Address by President W. S. Harrold. Report of committees. Prayer by Rev. Dr. Hunter.

Afternoon session, 1:30 o'clock p. m.

Music. Dairy Farming, by F. D. Gaston, of Normal. Discussion, B. T. Hill, H. D. Watson. Poultry on the Farm, by B. W. Breighner. Poultry for Profit, by L. H. Merriman. Discussion.

Evening session, 7:30 o'clock p. m.

Music. Recitations and oration.



C. M. HARTSOCK, Secretary.

Du Page County Farmers' Institute.



H. M. MIDDAGH, President.

WEDNESDAY, FEBRUARY 20, 1896.

Morning session, 10 a. m.

Prayer. Music, Wheaton High School Quartette. Soils that Need Draining and Tiling, H. C. Middaugh. Music, Miss Bartlett. Poem of a submerged section, or "How Farmer Smith Made His Fortune." Tubular Well Outlets, Wm. H. Hammerschmidt. Reading, Mrs. E. Bartlett. Poultry, C. B. Blodgett. Music, N. E. Sutcliffe. Raising Boys on the Farm, W. B. Lloyd. Address, C. D. Clark. Recess to 1:30 p. m.

Afternoon session, 1:30 p. m.

Music, Wheaton High School Quartette. The Horse, Dr. W. C. Galbraith. Household Economics, Mrs. W. B. Lloyd. Music, N. E. Sutcliffe. Address, Hon. Francis Hoffman. Practical Pointers, D. B. Givler. Reading, Mrs. E. Bartlett. Country Roads, James McClintock. Address, Hon. J. H. Batten.

The next institute congressional will be held at Wheaton, February 9, 10 and 11, 1896.

Election of officers for the ensuing year resulted as follows: H. C. Middaugh, president; A. D. Albro, Mrs. W. B. Lloyd, vice presidents; Prof. R. T. Morgan, secretary; John Christie, treasurer. The officers were made the executive committee. William H. Hammerschmidt, Lombard, Ill., and C. B. Blodgett, Downer's Grove, Ill., have been elected to the executive committee.

The DuPage County Farmers' Institute was organized January 14, 1896, with twenty charter members. H. C. Middaugh, Clarendon Hills, Ill., was elected president; Wm. H. Hammerschmidt, Lombard, Ill., vice president; R. T. Morgan, Wheaton, Ill., secretary, and John Christie, Wheaton, Ill., treasurer. The first institute was held February 19 and 20, 1896, at the court house in Wheaton. The organization has now a membership of about one hundred. Below is program of the meetings held February 19-20, 1896.

TUESDAY, FEBRUARY, 19, 1896.

Morning session, 10 a. m.

Prayer. Music, Wheaton High School Quartette. Opening address, Hon. M. Slusser. Response, R. C. Bryant. Organization. Music, Miss Bartlett. Reading, Mrs. E. Bartlett. Address, Hon. S. A. Ballou. Recess to 1:30 p. m.

Afternoon session, 1:30 p. m.

Music, Wheaton High School Quartette. Tuberculosis, Dr. M. R. Trumbower. Music, N. E. Sutcliffe. The Relative Value of Feed for Beef or Milk, Hon. C. D. Bartlett. Address, Charles J. Kinnie. Music, Miss Bartlett. Address, Prof. Jona Piper. Reading, Mrs. E. Bartlett. Dairy Interests, John Boyd.



R. T. MORGAN, Secretary.

Edgar County Farmers' Institute.



WILLIAM McADAMS, President.

His Own Exertion, James Riley. The Continuous Growth and Law of Success, A. O. Lockridge. Adjourned to meet at 9:30 a. m. March 4.

MARCH 4, 1896.

Morning session, 9:30 a. m.

Song by Gem City Quartette. Use and Abuse of Farm Implements, S. F. Honnold, Kansas, Ill. The Draft Horse and His Future, W. H. Morris, Warrenton, Ill.; discussion by William McAdams, Sr. Song by Quartette. The Breeding and Management of Swine, James Riley, Ind.; discussion by quite a number of farmers. Song by Quartette. Our Grasses, Mr. Lockridge, Ind. Can Farming be Made a Success, James L. Honnold. Adjourned till 1 p. m.

Afternoon session, 1 p. m.

Institute opened with song by Quartette. Live Stock the True Basis of Agriculture, W. A. Coleman, Paris. Seed Corn and Culture of Corn in a Dry Season, James Riley. Selection and Indications Quality of Dairy and Beef Cattle, John O. Hormold. Song. How My Wife Took the Gold Medal Prize at the World's Fair on Butter, and The Advantage of Farmers' Institutes to Farmers' Wives, James Riley, Ind. The Sunny Side of Farm Life, A. O. Lockridge, Ind. Song by Quartette. Adjourned.

The Edgar County Farmers' Institute was organized in March, 1896.

The first institute was held March 3 and 4, in the Court House at Paris.

The meeting proved to be very successful and profitable, and the gatherings were characterized by enthusiasm throughout.

The following officers were elected and presided over the meeting: William McAdams, Sr., Kansas, president; John O. Honnold, Warrenton, secretary and treasurer, George H. Gordon, Paris, corresponding secretary Executive committee, S. J. Headley, Paris, George H. Gordon, Paris, W. H. Morris, Warrenton, John O. Honnold, Warrenton, and W. A. Coleman, Paris.

The programme of the meetings held March 3 and 4, is as follows:

TUESDAY, MARCH 3, 1896.

Afternoon session.

Music. Prayer. Organization and election of officers. Necessity of Farmers' Institutes, James Riley of Thornton, Indiana, and A. O. Lockridge, Greencastle, Ind. My Experience on the Farm, William McAdams, Sr., Kansas. Can a Young Man Buy and Pay for a Farm by



JOHN O. HONNOLD, Secretary.

Greene County Farmers' Institute.



CHARLES HOLLENBACK, President.

Evening session, 7 p. m.

Music: vocal music, Mrs. Sue Greene. The Monroe Doctrine, Dr. H. W. Hand, White Hall; discussion. Reading, Mrs. Howard Burns. Vocal music, Mrs. Sue Greene. Needed Legislation for the Farmer, S. D. King, Athensville; discussion.

THURSDAY, JANUARY 30.

Morning session, 9 a. m.

Prayer, Rev. W. P. Hoskins. The Profitable Hog to Raise, George W. Witt; discussion. Planting Fruit Trees as an Investment, Henley Wilkinson; discussion.

Afternoon session, 1:30 p. m.

Music. The Chicago Drainage Canal and the Illinois River, Hon. R. H. Davis; discussion. Cattle, Col. W. H. Fulkerson, Jerseyville; discussion. C. I. McCollister County Fairs, C. W. Holnback; discussion, J. K. Farrelly.

Evening session, 7 p. m.

Music, Symphony Club; vocal music, Mrs. H. H. Montgomery. Reading, Miss Abbie Pegram. Resolved, That the United States Recognize the Belligerency of Cuba; affirmative, Thos. Henshaw and E. W. Chism; negative, J. C. Bowman and A. Connoles.

The addresses given by ex-Gov. N. J. Coleman, of St. Louis; Hon. A. P. Grout, of Winchester, and ex-Senator Robert H. Davis, of this city, were very interesting, and the speakers were applauded a great many times.

The Executive Committee consists of H. J. Andrews, Leroy McFarland, Donald Simpson, Jr., James McNabb, Editor Gazette and S. E. Simpson.

The first county institute held in Greene county was held in Carrollton in 1889, under the Greene County Agricultural and Mechanical Board, and was conceived and originated with the Hon. W. J. Andrews, of Carrollton; Col. W. H. Fulkerson, of Jerseyville, and Hon. Benj. Roodhouse, of Carrollton; 1890, at Roodhouse; 1891, at Greenfield; 1892, at Carrollton; 1893, at White Hall; 1894, at Roodhouse; 1895, at Greenfield, and in 1896, January 29-30, at Carrollton. All of these meetings have been interesting, instructive and largely attended. The program of the 1896 institute, which was one of the best attended we have ever had, is as follows:

WEDNESDAY, JANUARY 29.

Morning session, 11 a. m.

Prayer, Rev. W. J. Tull. Music. Address of Welcome, H. T. Rainey; response, C. W. Holnback, president Greene County Fair Association.

Afternoon session, 1:15 p. m.

Music. Address, Hon. Norman J. Coleman, St. Louis. The Horse, J. K. Farrelly; discussion, L. E. Frost and Charles Edwards. Music. Methods of Judging Live Stock, J. E. Baker, White Hall; discussion. Some Mistakes and Farm Leaks, Hon. A. P. Grout, Winchester; discussion.



S. E. SIMPSON, Secretary.

Henderson County Farmers' Institute.



J. M. FORT, President.

SECOND DAY.

Morning session, 10 a. m.

Music. Prayer. Rev. J. M. McArthur. Paper, "Methods that Should be Adopted to Make Swine Breeding Profitable," George Pearce. Paper, "From Farrowing Pen to Pork Barrel," Oliver Whiteman. Discussion of above topics. Paper, "The Cattle Industry," J. W. Brook. Paper, "Cattle Feeding," C. E. Fort. Discussion. Paper, "Hard Roads," Elder John Huston. Discussion. Music.

Afternoon session, 2 p. m.

Prayer, Rev. Steel. Paper, "How to Keep the Boys on the Farm," Mrs. Finch. Discussion. Paper, "Fruit Raising," Will Weir. Paper, "Hints on Propagation, Selection and Planting of Fruits," J. Marion Fort. Discussion of above topics. Paper, "The Draft Horse Industry. Feeding for Market. Experience in Shipping," E. D. Rankin. Discussion. Election executive committee.

The next institute will be under the management of the following officers, President, J. Marion Fort, of Stronghurst; vice-president, Edgar D. Rankin, of Biggsville; secretary, J. Wesley Rankin, of Biggsville; treasurer, Hal Stewart, of Biggsville; advisory committee, Will Weir, South Henderson; W. A. Crouch, Rozzetta; Jacques Vorhees, Raritan; Payson Maynard, Terre Haute.

The present Institute was organized in January 1896. The first institute meeting was held February 18 and 19, 1896, at Stronghurst under the following management: President, Edgar D. Rankin, secretary, J. Wesley Rankin, all of Biggsville; treasurer, J. Marion Fort, of Stronghurst. The programme of the institute held February 18 and 19, 1896, is as follows:

FIRST DAY.

Morning session, 10 a. m.

Music. Prayer, Rev. A. N. Porter. Paper, "Our Worn Out Land," Payson Maynard. Discussion. Paper, "Rotation of Crops," John Stine. Discussion. Paper, "Teeth of Our Domestic Animals," H. B. Harter, V. S. Music.

Afternoon session, 2 p. m.

Music. Prayer, Rev. W. W. Morgan. Paper, "Rural Delivery," Hon. J. O. Anderson. Discussion. Paper, "A Broader Life for Farmers' Families," Mrs. L. P. Maynard. Paper, "Atlanta Exposition Notes," J. Cecil Brook. Paper, "Dairying," W. A. Spears. Discussion. Paper, "Sheep Raising," C. E. Lant. Paper, "The Future Outlook of Sheep Industry," Hal Stewart. Discussion. Paper, "Poultry on the Farm," Isabella Best. Discussion. Music.



J. WESLEY RANKIN, Secretary.

Henry County Farmers' Institute.



R. H. HINMAN, President.

Evening session, 7:30 p. m.

Prayer, Rev William Wallace. Music. Education of farmers' sons, N. W. Thornton, Geneseo. Music. Sunshine and Shadow of Farm Life, Mrs. Inez Ferguson, Orion. A Plain Talk to Plain People, Mrs. B. J. Brown, Cambridge.

WEDNESDAY, FEBRUARY 19, 1896.

Morning session, 10 a. m.

What is a Farmer, I. G. Heaps, Kewanee. Discussion, D. S. Keleher, Orion; John Miller, Galva and Chas. Malcolm, Cambridge. The Poultry Business, Miller Purvis, Chicago. Our Farm Homes, E. H. Goldsmith, Wataga. Farmers' Institutes, J. H. Coolidge, Sr., Galesburg.

Afternoon session, 1:30 p. m.

Dairying in Illinois, J. H. Coolidge, Jr., Galesburg. Want of Business Methods among Farmers, E. S. Fursman, El Paso. Taxation of Farm Property, John C. Wilson, Rural. Discussion, D. L. Keleher, Orion; I. G. Heaps, Kewanee; Byron Jordan, Orion and Wm. M. Smith, Cambridge.

The next meeting of the Henry County Farmers' Institute will be held at Geneseo (at date to be set in the future) under the auspices of the following officers: President, Frank S. Melvin; vice-president, W. W. Cole; treasurer, J. P. Fox; secretary, H. M. Gilbert; all of Geneseo.

The Henry County Farmers' Institute was organized in October 1891. Institutes have been held February 14 and 15, 1892, February 15 and 16, 1893, both at Cambridge, and February 6 and 7, 1894, at Galva, and January 22 and 23, 1896. The last institute was held in Armory Hall, Cambridge, February 18 and 19, 1896 under the following management: President, R. H. Hinman; vice-president, N. B. Gould; treasurer, R. W. Fleming; secretary, James Pollock, all of Cambridge. The programme of the last institute is as follows:

TUESDAY, FEBRUARY 18, 1896

Morning session, 10:30 a. m.

Prayer, Rev. J. C. Calhoun. President's opening address, R. H. Hinman. Reports of Township vice-presidents. Appointment of Committee on organization.

Afternoon session, 1:30 p. m.

Benefit of organization among farmers, H. J. Miller, Galva. Discussion, John Miller, Galva; Byron Jordan, Orion; D. L. Keleher, Orion; M. M. Nash, Osco and I. G. Heaps, Kewanee. Horticulture on the farm, E. S. Fursman, El Paso. Discussion, M. M. Nash, Osco; Chas. Malcolm, Cambridge and Mrs. B. J. Brown, Cambridge. Agriculture in Illinois, W. R. Tracy, New Windsor. Rotation in Crops, H. M. Gilbert, Geneseo.



JAMES POLLOCK, Secretary.



Iroquois County Farmers' Institute.



DAVID BRUMBACK, President.

THURSDAY EVENING.

7:30 o'clock.

Music, Mandolin Club. Recitation, Miss Myrtle Harris. Song, Quartette. "The Farmer as a Factor in Civilization," W. R. Jewell, Danville. Music, Mandolin Club.

FRIDAY MORNING.

9:00 o'clock.

Prayer, Rev. C. F. Claypool. Election of officers. "Corn Culture," E. S. Fursman, El Paso. Report of committee on awards. Question box.

FRIDAY AFTERNOON.

1:30 o'clock.

Music, Lott and Drake. "Swine Growing," D. P. McCracken, Paxton. Whistling solo, Mary Lyman. "Small Fruit on the Farm," G. W. McCluer, U. of I. Question box.

FRIDAY EVENING.

7:30 o'clock.

Music, Mandolin Club. Solo, S. F. Swinford. Song, Quartette. Address, Wm. R. Hunter, Kankakee.

The tenth annual meeting of the Iroquois County Farmers' Institute was held in Braden's Opera House, Watseka, Thursday and Friday, February 13 and 14, 1896, under the following management: Officers, President, David Brumback, Danforth; Secretary, Monroe Garrison, Watseka; Treasurer, J. W. Dixon, Wellington. Committee on Program and Reception: Frank I. Mann, John L. Hamilton, Geo. C. Harrington, Monroe Garrison, Frank P. Martin. Committee on Exhibits: C. E. Foster, Frank Fanyo, John Hoke, Fred Benjamin, Wm. Smith. The programme of the Institute meetings held February 13 and 14 is as follows:

THURSDAY AFTERNOON.

1:30 o'clock, p. m.

Prayer, Rev. W. W. Sniff. Violin solo, Prof. Lott. Address of welcome, Mayor Jas. Parker. Response by the President. Song, Mrs. Jennie Stanley. Appointment of committees. "Poultry on the Farm," Mrs. J. Carter, Danville. Violin solo, Miss Susie Laub, La Hogue. "Retention of the Fertility of the Soil," Prof. E. Davenport, U. of I. Question box.



MONROE GARRISON, Secretary.

Jasper County Farmers' Institute.



W. E. BARRETT, President.

FRIDAY, JANUARY 31, 1896.

Morning session, 10 o'clock a. m.

Music. Rotation of Farm Crops, Jas. P. Warren. Discussion, G. H. Larrabee, W. C. Gibson. Floriculture and Home Adornment, Mrs. J. W. Honey. Discussion.

Afternoon session, 1 o'clock p. m.

Music. Fruit Interest, by J. W. Honey. Cattle Raising, W. C. Gibson. Discussion, R. H. Vanderhoof, Jos. P. Warren, Geo. Obert. Breeding and Rearing Hogs, G. H. Larrabee. Discussion by J. P. Warren and A. H. Beals. Horse Raising, A. H. Beals. Discussion, W. C. Gibson. Sheep Raising, J. Massey. Discussion, George Obert, W. C. Gibson, Oliver Wilson.

The next meeting of the Jasper County Farmers' Institute will be held in connection with the Congressional Institute at Newton, Ills., Tuesday and Wednesday, January 28 and 27, 1897. The following officers were elected and will have charge of the next meeting: President, W. C. Gibson, Lis; vice-president, A. H. Beals, Newton; secretary, W. R. Carrico, Newton; treasurer, J. J. Kinsel, Newton; executive committee, G. H. Larrabee, Hunt; J. P. Warren, Rose Hill; Geo. Obert, Bogota; M. McMurray, Newton, and Jeff. Cummins, Sr., Rose Hill.

The organization was effected in December, 1896, and the first and only institute was held at the court house in Newton January 30 and 31, 1896, under the direction of the following officers elected at the time of the organization: Wm. E. Barrett, president; A. M. List, vice-president, both of Lis, Ill.; Geo. S. Batman, Secretary, W. R. Carrico, treasurer, both of Newton, Ill.; executive committee, D. R. Love and Wm. Johnson, of Newton; Paul Hartrich, St. Marie; Thos. Warren, Pt. Pleasant, and Phil Mason, Wheeler, Ill. The programme of the institute held January 30 and 31, 1896, is as follows:

The president called the institute to order at 10 a. m. Thursday, January 30. Devotional exercises. Music and prayer was conducted by J. W. Honey. Opening address by the president, Wm. E. Barrett. Papers and addresses were presented as follows: Corn, Its Culture and Uses, by R. H. Vanderhoof; discussion, Jas. P. Warren, W. C. Gibson and J. W. Honey. Poultry on the Farm, Mrs. Rose S. Carr; discussion, J. P. Warren, W. C. Gibson.

Afternoon session, 2 o'clock p. m.

Music. Farm Insurance, by M. McMurray. Discussion, W. E. Barrett, G. T. Riesner.



GEO. S. BATEMAN, Secretary.

Jefferson County Farmers' Institute.



L. U. BEAL, President.

Prayer, Rev. Gilliland. Declamation, Orrie Laird. Old Times in Jefferson County, James Pace. Recitation, Lillie Bond. Old Times in Jefferson County, discussion, Jas. Furgeson, S. T. Maxey and J. R. Moss.

THURSDAY, FEBRUARY 6, 1896.

Morning session, 9 o'clock a. m.
 Prayer, Eld. Chas. A. Burton. Hot Beds, C. M. Dixon, of Parish, Ill. My way of farming, W. S. Chaney.
 Afternoon session, 1:30 o'clock p. m.
 Droughts, Causes and Remedy, Jno. P. Stelle. The Horse, Jno. Landrigan.
 Evening session, 7:30 o'clock p. m.
 Prayer, Rev. Gilliland. Violin solo, Rex Rober. Declamation, Warner Reubelt. Violin duett, Bruno and Rex Rober. Song, Ruby Goodrich. Recitation, Effie Bates. Violin solo, Bruno Rober. Recitation, Carrie Furgeson. Taxation, James M. Washburn.

FRIDAY, FEBRUARY 7, 1896.

Morning session, 10 o'clock a. m.
 Prayer, Rev. Hayes. Song, Farm Life, Mrs. I. U. Beal. Co-operation among Fruit Growers, E. G. Mendenhall. The Cow, J. R. Percy.
 Afternoon session, 1:30 p. m.
 Devoted to awarding prizes on exhibits. Reports of officers and election of officers for ensuing year. The following officers were elected: President, L. T. Beal; vice-president, John Danner; secretary, Rev. J. D. Hooker; treasurer, T. C. Moss.

The present organization was completed in 1893, and institutes have been held in Mt. Vernon as follows: Spring of 1893, Spring of 1894, February 20 and 21, 1895, and February 6, 7 and 8, 1896. The last mentioned under the following management: President, L. U. Beal; secretary, F. G. Blood; treasurer, T. C. Moss; together with a vice-president from each township in the county. The large court room was crowded at every session, and the following programme was carried out with enthusiasm and benefit.

WEDNESDAY, FEBRUARY 5, 1896.

Morning session, 10 o'clock a. m.

Prayer, Rev. H. L. Hayes. Address of Welcome, Mayor B. C. Wells; Response, John P. Steels. President's Address, L. N. Beal. Report of delegates to State meeting.

Afternoon session, 1:30 o'clock p. m.

Fertilizing, Nelson Smith. General discussion, Lime as a Fertilizer.

Evening session, 7:30 o'clock p. m.



F. G. BLOOD, Secretary.

LaSalle County Farmers' Institute.



U. S. ELLSWORTH, President.

Evening session, 7:30 o'clock p. m.

Music, Orchestra. Paper, The Power of Rural Influence, Mrs. E. L. Gleason, Mendota. Music, Instrumental, Miss Wershinski, Mendota. Recitation, Miss Mabel Imus, Mendota. Address, Agricultural Education, Eugene Davenport, Dean Agricultural College U. of I. Music, Male Quartette. Paper, Sunshine and Shadow of Farm Life, Mrs. L. G. Chapman, Freedom. Music, Orchestra.

THURSDAY, JANUARY 30.

Morning session, 10 o'clock a. m.

Music, Quartette. Address, Farmers Mutual Insurance, Jno. Ferguson, Troy Grove. Discussion, Dwight Lawrence, Ottawa. Discussion, Jno. L. Grove, Utica. Discussion, T. A. Pottenger, Peru. Discussion, Levi Hiscock, Earlville. Address, Farm Drainage, J. W. Billingsley, Indianapolis, Ind. Discussion, S. J. Haight, Jr., Mendota. Discussion, W. A. Wilkins, Troy Grove. Discussion, U. S. Ellsworth, Deer Park. Discussion, J. L. Carpenter, Princeton. Address, Swine, G. A. Wilmarth, Seneca. Discussion, D. S. Countryman, Rochelle. Discussion, O. Bedient, Sublette. Discussion, Sno. Winters, Clarion. Discussion, E. W. Shearburn, Mendota. Reports of Committees. Music, Quartette.

Afternoon session, 2 o'clock p. m.

Music, Quartette. Address, The Horse, R. P. Stericker, Springfield. Address, Cattle, A. C. McIntre, Mendota. Address, Cattle, Geo. Mercer, LaMolle. Address, Sheep, Wm. Truman, Mendota. Paper, Poultry, Mrs. Olmstead, Freedom. Music, Selected, Miss Olga Meisenbach. Address, Clover the Poor Man's Fertilizer, Hon. Daniel Berry, Carmi. Discussion, Hon. Jno. Wylie, Waltham. Discussion, Geo. E. Wills, Troy Grove. Discussion, P. L. Harris, Meriden. Discussion, C. T. Franks, Mendota. Paper, Capillary Attraction, W. R. Foster, Mendota. Music, Quartette.

The LaSalle County Farmers' Institute was organized September 21, 1896, with the following officers: President, U. S. Ellsworth, Deer Park; Vice-President, J. R. Shaver, Ottawa; Secretary, Mrs. L. G. Chapman, Freedom; Treasurer, M. B. Corkins, Mendota. The Executive Committee consists of G. A. Wilmarth, Seneca; U. S. Ellsworth, Deer Park; John Hall, Dayton; Miss Emma Mudge, Peru; Mrs. Hattie Olmstead, Freedom.

WEDNESDAY, JANUARY 29.

Afternoon session, 2 p. m.

Music Quartette. Invocation, Rev. J. R. Hamilton. Address of Welcome, Mayor C. L. Rogers. Response, Hon. U. S. Ellsworth. Response, Geo. H. Madden, member State Board Agriculture. Selection of committees, Committee on Organization, Committee on Resolutions, Committee on Legislation. Address, Hard Roads, A. C. Baldwin, Chairman Board Supervisors. Discussion, Urias Myers, Troy Grove. Discussion, Doc Norton Earlville. Discussion, Mr. Bradshaw, Compton. Discussion, W. R. Dewey. Paper, on How to Interest Boys in Farming, and a talk on Small Fruits, J. L. Hartwell, Sec. N. I. Horticultural Society. Paper, Horticulture, Samuel Edwards, Mendota. Ex. Pres. State Horticultural Society. Discussion, Arthur Bryant, Princeton. Discussion, Conrad Anschick, Ottawa. Music, Quartette.



MRS. L. G. CAMPBELL, Secretary.

Lawrence County Institute.



JAMES EATON, President.

FRIDAY, 1 P. M.

Music. Our Soils How Maintain their Fertility, D. S. Porter. Discussion, led by Adam Wenger. Music. Our Country Home, Miss Maggie Finley. Discussion, led by Mrs. J. W. McLeave. Music.

Evening session 7:15 p. m.

Music. Our Rural Schools, J. B. Stout. Discussion, led by James M. Collison.

SATURDAY, 9 A. M.

Music. Prayer. Good Roads and how to Make Them, Samuel Stoltz. Discussion, led by Philip Gadd. Music. American Beef and its Production, W. E. Neal. Discussion, led by S. B. Helm.

Reorganization. Adjournment.

On reorganization, Jas. K. Dickirson of Lawrenceville was elected President, James Eaton, Treasurer; W. E. Neal, Secretary; both of Bridgeport. The following list of Vice-Presidents, one from each Township were appointed: D. A. Watts, Sumner; J. F. Burt, Chauncey; Thos. Guttridge, Ruarks; W. E. Finley, Bridgeport; Thos. England, Billet; A. D. Sprinkell, Allison; John Price, Russellville; Robert W. Kingsbury, Birds; P. W. Barnes, Lawrenceville. Under the above management Lawrence county will hold a two days' Institute, Wednesday and Thursday, Jan. 20 and 21, 1897, at court house in Lawrenceville.

The Lawrence County Agricultural and Horticultural Association was organized January 28, 1896. James Eaton, of Bridgeport, was elected President and W. E. Neal, Secretary and Treasurer. The following list of Vice-Presidents, one from each township in county was chosen: Alvan Leaney; Robt. W. Kingsbury, Birds; A. D. Sprinkell, Allison; Thomas England, Billet; Jas. K. Dickirson, Lawrenceville; W. E. Finley, Bridgeport; Geo. W. Pront; W. P. Johnson, Sumner; Asa Mushrush, Chauncey. Under the above management we held our first Farmers' Institute, at the court house in Lawrenceville, February 28 and 29, 1896. The programme following being rendered:

FRIDAY, 10 A. M.

Music. Prayer, Elder Hattom. Address of Welcome, J. K. Dickirson. Response, A. D. Sprinkell. Present and Future Possibilities of Agriculture and Agriculturists, W. T. Buchanan. Discussion, led by F. W. Cox.



W. E. NEAL, Secretary.

Lee County Farmers' Institute.



A. G. JUDD, President.

Music. The Medieval Farmer and the Farmer of Nineteenth Century, Mrs. C. L. Swigart. Music. Hard Roads, J. Stewart Elburn. Recitation, Mrs. C. W. Boucher. Music. Address by Prof. E. Davenport, Dean Agricultural Department, University of Illinois, Urbana.

THURSDAY, FEBRUARY 27, 1896.

Morning session, 9:30 a. m. sharp.

Report of Work on Stone Roads, Various Road Commissioners. Questions. Reading of Prize Essay on "Hard Roads," first prize A. G. Judd, Dixon, Ill. Green Manuring, Prof. E. Davenport. Discussion. Election of officers.

Afternoon session 1:15 o'clock p. m.

Dairy Husbandry, Prof. E. Davenport. Discussion. Mastication, Digestion and Assimilation of Food and Secretion of Milk in Dairy Cows, Hon. D. A. Sheffield, M. D. Discussion. Best and Cheapest Method of Cutting and Handling Corn Fodder, Hon. J. P. Wilson. Discussion.

A Question Box will be a feature of the meeting. Write on a slip of paper any question you are interested in, and whenever opportunity offers the box will be opened and questions answered.

Thursday evening session, 7:30 o'clock p. m.

Music. Duet, Misses K. Lennon and N. McGinnis. Poultry Raising, Mrs. Morris Wasser. Polo. Reading of Prize Essay on Agricultural Topic. Music. Solo, Miss Kittie Lennon. Sunshine and Shadow of Farm Life, Mrs. L. G. Chapman. Freedom. Music. Violin Solo, Samuel Evans. The Farmer Boy (Written by A. D. Schamel, Student in Agricultural Department, University of Illinois.) Clyde Seavey. Music. Trio, Misses Lennon, McGinnis and Brookner. Balanced Rations, Mrs. A. G. Judd. Music. Trio. Committee on Finance, John L. Lord, Hiram Hetler, George McCleary. Committee on Decoration, J. L. Hartwell, George W. Smith, Eugene Raymond, Josiah Buffett, Stuart Wilson, G. M. DeLand, J. L. Hess. Committee on Advertising, Hon. L. Mitchell, E. C. Parsons, R. E. Swigart. Reception Committee, Hon. C. H. Hughes, W. A. Judd, John L. Lord, Warren Smith, Thos. Morgan, R. Trowbridge, J. McKinstry, Mrs. L. W. Mitchell, Mrs. Warren Smith, Mrs. D. A. Sheffield, Mrs. A. G. Judd, Mrs. C. L. Swigart, Mrs. J. L. Hess, Mrs. J. L. Hartwell.

The Institute was organized at Dixon, Ill., in December, 1887. Institutes have been held at Dixon as follows: December, 1887; February, 1891; February, 1894 and February 1895.

The last institute was held in the court house at Dixon, February 26 and 27, 1896. The officers were as follows: A. G. Judd, president; A. Selig, vice-president; R. E. Swigart, secretary; John L. Lord, treasurer; executive committee, Hon. L. W. Mitchell, Hon. D. A. Sheffield, A. T. Keithly, A. G. Judd, R. E. Swigart, all of Dixon, Ill. The program of the last institute is as follows:

WEDNESDAY, FEBRUARY 26, 1896.

Morning session, 10 o'clock a. m.

Call to order by President, A. G. Judd. Prayer, Rev T. F. Dornblazer. Address of Welcome, Mayor C. H. Hughes. Response, Hon. J. P. Wilson. Horticulture on the Farm, Amos F. Moore, Polo. Discussion. Renewing an Old Orchard, George M. DeLand, Dixon. Discussion.

Afternoon session 1:15 o'clock p. m.

Grass Seeding Without a Nurse Crop, Chas. Walkup, Oregon. Discussion. Hog Raising for Profit, James Graham, Stillman Valley. Discussion. Hog Cholera, Dr. J. H. Miller, V. S., Dixon. Discussion. Question Box.

Wednesday evening session, 7:30 o'clock.



ROY E. SWIGART, Secretary.

Reception Committee, Hon. C. H. Hughes, W. A. Judd, John L. Lord, Warren Smith, Thos. Morgan, R. Trowbridge, J. McKinstry, Mrs. L. W. Mitchell, Mrs. Warren Smith, Mrs. D. A. Sheffield, Mrs. A. G. Judd, Mrs. C. L. Swigart, Mrs. J. L. Hess, Mrs. J. L. Hartwell.

McDonough County Farmers' Institute.



F. T. HANKINS, President.

The first meeting of the McDonough County Farmers' Institute was held at the court house, Macomb, Ill., January 10 and 11, 1888, at which time the present organization was effected. The organization has been kept up. The more recent meetings are as follows: February 15 and 16, 1893; February 27 and 28, 1894; October, 17 and 18, 1894; February 27 and 28, 1895; October 23 and 24, 1895. The last meeting was held in the G. A. R. hall, Macomb, Ill., February 26 and 27, 1896. Present officers are as follows: F. T. Hankins, president, Sciota; George W. Reid, treasurer, Macomb; H. E. Billings, secretary, Macomb. Executive committee, S. Blackstone, Adair; Henry Miles, Vermont; Delos Shannon, New Philadelphia; Levi Mills, Bushnell; James Leard, Prairie City; Porter Young, Industry; J. W. Wilhelm, Macomb; Hattie Vall, Macomb; Harry Knight, Macomb; D. McMillan, Macomb; John Blazed, Macomb; Geo. W. Reid, Macomb; Wm. Webb, Good Hope; Oscar McElvain, Scottsburg; John W. Wayland, Macomb; Charles Filbert, Macomb; Mrs. G. Stickle, Macomb; Abel James, Sciota; Thos. Fulkerson, Hill Grove; Elva Gilchrist, Hill Grove; Wm. Johnson, Colchester; Robert Anderson, Macomb; Frank Herzog, Blandinsville. The program of last meeting was as follows:

WEDNESDAY, FEBRUARY 26, 1896.

Morning session, 10 o'clock a. m.

Call to order. Invocation. Address of welcome, H. E. Billings, Macomb. Breeding and Feeding, S. Blackstone. Discussion, Hon. Jas. Teel, Rushville, and H. Knight.

Afternoon session, 2 p. m.

Benefits of Organization Among Farmers, C. G. Chandler, Macomb, and others. The Farmers' Wife and Home, Miss Elva Gilchrist. Question box.

THURSDAY, FEBRUARY 27, 1896.

Morning session, 10 o'clock a. m.

Instrumental music, Bert Morgan. Crops of McDonough County, S. Blackstone and others.

Afternoon session, 2 p. m.

Instrumental music. The Development of Agriculture and Some of Its Present Grievances Hon. James Teel. Recitation, Miss Mary Mason, Macomb. How to Keep the Boys on the farm, Hon. George W. Dean, Adams. Song, Rev. James Gash, Macomb, and Mr. McCandless, Macomb. Distribution of Koffir corn. Election of officers.

The next meeting will be held at Macomb, October 28 and 29, 1896.



H. E. BILLINGS, Secretary.

Menard County Farmers' Institute.



F. H. RANKIN, President.

SATURDAY, MARCH 14, 1896.

Morning session, 9:30 o'clock a. m.

Music. Prayer, Rev. J. E. Davis. Horse Breeding, Coach and Road Horse, H. C. Williams. Discussion, J. G. McHenry, John H. Kincaid, Frank E. Blane. Draft Horse, Jacob F. Bergen. Discussion, H. F. Cupp, George Welsh, Peter Grosboll, James Wood. Saddle Horse, Charles O. Culver. Discussion, Charles Van Meter, Will Power, T. J. Nance. Good Roads and How to Secure Them, Frank V. Alkire. Discussion, H. H. Marbold, Thomas Barfield. Farm Fencing, General Discussion. Mutual Farm Insurance, Col. Chas. F. Mills. Recitation, Miss Margie Young.

Afternoon session, 1:30 o'clock p. m.

Solo, Miss Luemma Williams. Recitation, Miss Mattie Miller. Paper, Mrs. Wm. Masters. Beef Cattle, Col. J. W. Judy. Discussion, Eli Reep, G. W. Spears. Dairy Cattle, Homer Stewart. Discussion, Isaac Clark, Andrew Park, Cicero Beck. Corn Culture, W. E. Johnson. Discussion, H. S. Houghton, W. S. Smoot, Jess Grosboll, Wm. Helstern. Clover and its Value, Hon. Homer J. Tice, Robert Pautler, James Self, W. C. Smoot, A. N. Curry.

The election of officers for the ensuing year resulted as follows: President, Fred H. Rankin, Athens; Vice President, Homer J. Tice, Greenville; Secretary, H. A. Wood, Petersburg; Treasurer, Jacob F. Bergen, Petersburg; Executive Committee, James S. Miles, Petersburg; R. Y. Kincaid, Athens; Ely Reep, Petersburg; John Terhune, Sweet Water; Henry Williams, Athens; Wm. Helstern, Atterbury; James Self, Petersburg; Mrs. Wm. Masters, Petersburg; Mrs. Belle Kincaid, Athens.

Delegates appointed to attend the next State Institute, Jepson Grosboll, Petersburg; A. G. Nance, Petersburg; J. H. Kincaid, Athens.

The next Menard County Institute will be held at Petersburg, Tuesday and Wednesday, January 19-20, 1897.

The Menard County Farmers' Institute was organized in Petersburg, Ill., pursuant to a call made for such a meeting by R. Y. Kincaid and Fred H. Rankin, of Athens. The meeting was held at the court house by a goodly number of farmers and citizens of the county, December the 14th, 1895, and the following officers were duly elected: President, Fred H. Rankin, of Athens; Vice President, Homer J. Tice, of Greenville; Secretary, H. A. Wood, of Petersburg; Treasurer, Jacob F. Bergen, Petersburg; Executive Committee, Robert Pautler, Petersburg; R. Y. Kincaid, Athens; A. G. Nance, Petersburg; James Self, Petersburg; John Terhune, Sweet Water.

The Executive Committee arranged the following programme, which was duly circulated through the county. The Institute was held in the Harris Guards Opera House, in Petersburg, Ill., March 13, 14, 1896, in accordance to the following program:

FRIDAY, MARCH 13, 1896.

Morning session, 9:30 o'clock a. m.

Music. Prayer, Rev. W. G. Archer. Address of welcome, Mayor J. M. Ott. Response, Fred H. Rankin. Sheep Breeding, A. G. Nance. Discussion, T. H. Alkire, John Q. Spears, Jas. Stone, R. Y. Kincaid, Martin Neff. Swine Breeding, William H. Graham. Discussion, Harvey Hurd, F. E. Bone. How to get the Most out of the Hog, A. N. Curry. Discussion, H. C. Graham, Cicero Beck.

Afternoon session, 1:30 o'clock p. m.

Music. Bee Husbandry, James Stone. Discussion, A. P. England. How to Make Poultry Profitable, J. N. Shelton. Discussion, W. E. Hatfield, Mrs. Belle Kincaid, J. C. Bishop, James Parish, Melvin Sampson. How to Raise our Boys and Girls to More Successful Farming, Mrs. Belle Kincaid. Recitation, Powell Grosboll. Small Fruit on the Farm, J. W. Cogdal. Discussion, Robert Thompson, A. P. England.



H. A. WOOD, Secretary.

Montgomery County Farmers' Institute.



W. A. YOUNG, President.

L. Morehouse, Hillsboro, Ill. Address, C. W. Bliss, Hillsboro, Ill. Paper, Mrs. George W. Paisley, Hillsboro, Ill.

FRIDAY, FEBRUARY 23, 1896.

Morning session, 10 o'clock a. m.

Music. Prayer, Rev. Childress. Address, Outlook for Sheep Breeders, Hon. R. M. Bell, Decatur, Ill. Address, Sheep for Mutton and Wool, Harry Grundy, Morrisonville, Ill. Paper, Shropshire Sheep, E. J. File, Hillsboro, Ill. Address, The Berkshire Hog, Hon. J. R. Challacombe, Hillsboro, Ill. Paper, The Poland China Hog, John Edwards, Coffeen, Ill.

Afternoon session, 1:30 o'clock p. m.

Music. Address, Grasses for Hay and Pasture, Hon. D. H. Zepp, Nokomis, Ill. Paper, Ensilage and the Silo, Jesse W. Osborn, Hillsboro, Ill. Address, Clover and Potatoes, C. W. Colby, Butler, Ill. Address, Corn Raising and Clover, Arthur Ware, Butler, Ill. Paper, Wheat Raising, Wm. Ault, Hillsboro, Ill. Address, Improvement of Public Highways, Abraham Brokaw. Paper, How Can We Improve and Beautify Our County Roads, J. H. Rainey, Butler, Ill.

Evening session, 7:30 o'clock p. m.

Address, Life on a Farm, Rev. J. Jay Dugan, Hillsboro, Ill. Address, Sunshine and Shadow of Farm Life, Mrs. L. H. Thomas, Thomasville, Ill. Fruit on the Farm, Wm. A. Young, Butler, Ill. Address, Co-operation of Farmers, Hon. Norman J. Coleman, St. Louis, Mo.

The Montgomery County Farmers' Institute was organized at Hillsboro, December 27, 1895. The first meeting of said institute was held in the court house in Hillsboro, February 27-28, 1896. Wm. A. Young was elected president, Robert Bryce, vice president; A. A. K. Sawyer, treasurer; E. C. Richards, Secretary. Wm. A. Young, Butler, Ill.; Robert Bryce, Butler, Ill.; A. A. K. Sawyer, Hillsboro; E. J. File, Hillsboro, and E. C. Richards, Hillsboro, comprised the executive committee in charge of the institute. The program of the institute is as follows:

THURSDAY, FEBRUARY 27, 1896.

Morning session, 10 o'clock a. m.

Music. Prayer, Rev. T. B. Greenlee, Hillsboro, Ill. Address of Welcome, Dr. H. S. McLean, Mayor, Hillsboro. Response, William A. Young, Butler, president of institute. Address, Shorthorn Cattle, Col. W. H. Fulkerson, Jerseyville, Ill. Address, Hereford Cattle, J. B. Turner, Butler, Ill.

Afternoon session, 1:30 o'clock.

Paper, All Purpose Cattle, Robert Bryce, Butler, Ill. Address, Galloway Cattle, Moses Berry, Butler, Ill. Discussion. Address, The Draft Horse, Jacob Cress, Hillsboro, Ill. Address, The All Purpose Horse, Henry Ludewick, Hillsboro, Ill. The Saddle Horse, J. D. Kendall, Wagoner, Ill.

Evening session, 7:30 o'clock p. m.

Music. Paper, Gypsum and Subsoiling Clover, Robert Bryce, Butler, Ill. Paper, The Poultry Interest, Mrs. R. A. Judy, Decatur, Ill. Paper, Cow Feas for Stock and Gardening, M.



E. C. RICHARDS, Secretary.

Ogle County Farmers' Institute.



JOHN B. MIX, President.

per Scott, Lincoln; D. S. Huston, Lafayette; Henry Schelling, Leaf River; S. D. Tyler, Monroe; F. W. Marsh, Nashua; J. T. Campbell, Forreston; J. Zeigler, Pine Rock; Otto Timmerman, Rockvale; W. H. Boom, White Rock; John Vance, Taylor; J. L. Moore, Buffalo; James Boyle, Dement; I. E. Thorpe, Flagg; C. W. Johnson, Grand Detour; J. Countryman, Lynnville; Ernest Geslin, Maryland; A. W. Brayton, Mt. Morris; Lovejoy Johnson, Marlon; Charles W. Sammis, Oregon; Amos Baker, Pine Creek; S. S. Fife, Scott; F. Brimblecom, Woosung. The programme of the late meeting is as follows:

THURSDAY, DECEMBER 19, 1895.

Afternoon session, 1:30 o'clock p. m.

Called to order by President, John B. Mix. Prayer Address of Welcome, Gen. B. F. Sheets, Oregon. Response, W. P. Fearer, Pine Creek. Twenty-four hours in a Berry Patch, A. W. Brayton, Mt. Morris. Discussion. Relation of Yield to Profit, Eugene Davenport, Champaign, Ill. Discussion. The Buffetts and Rewards of Farming, Mrs. A. G. Judd, Dixon.

Evening session, 7 o'clock p. m.

Music. Are Education and organization the best means for the farmers' social and business advancement, A. G. Judd, Dixon, Ill. Music. Our farmers' sons and daughters—What shall they do, Eugene Davenport, Dean State University, Urbana, Ill. Music.

FRIDAY, DECEMBER, 20, 1896

Morning session, 9:30 o'clock a. m.

Mixed farming, Hiram Edmonds, Taylor. Discussion. How can the young men be interested in farming as a vocation, J. L. Hartwell, Dixon, Ill. Discussion. Retaining the moisture of the soil, C. W. Johnson, Grand Detour. Discussion.

The Ogle County Farmers' Institute Association was organized at Oregon, Illinois, in the year 1888, with Charles Sammis, of Oregon, Chairman, and Charles Walkup, Secretary. The association has held an institute meeting each year since its inception. Oregon, Polo, Mt. Morris and Rochelle each having had one or more meetings. These meetings have comprised four or more sessions each, and subjects pertaining to general farming, small fruit, education, organization, dairy, feed, roads, soil, fertilizer, insect life, domestic life and various other questions of general interest have been discussed. The association has re-organized each year, and Chas. W. Sammis, of Oregon; James P. Wilson, of Woosung; A. F. Moore, of Polo; Jacob Miller, of Mt. Morris, and John B. Mix, of Oregon, have each been chosen as presiding officer, and Chas. Walkup has been chosen secretary at each succeeding meeting. These institutes have been well attended by the more progressive farmers of the county and an increased interest has been shown each year. The last meeting was held in the Court House, Oregon, December 19 and 20, 1895, under the following management: President, John B. Mix, Oregon; secretary, Chas. Walkup, Oregon; executive committee, John B. Mix, Oregon; A. F. Moore, Polo; Chas. Walkup, Oregon; James Graham, Stillman Valley; F. W. March, Daysville; A. F. Brayton, Mt. Morris; C. T. King, Kings. The next meeting of the association will be held at Oregon, under the auspices of the officers elect, viz.: President, A. F. Moore, Polo; secretary, Chas. Walkup, Oregon. Executive committee, John B. Mix, F. W. March, James Graham, James P. Wilson, John L. Scott, J. E. Sharp. Vice-presidents consisting of one from each township of the county, are as follows: W. T. Porter, Brookville; H. Smith, Byron; Johnson Lawrence, Eagle Point; Jas-



CHAS. WALKUP, Secretary.

Piatt County Farmers' Institute.



W. H. KRATZ, President.

EVENING SESSION.

Music. "Influence of Rural Homes Upon Our National Life," by Miss Lucy Thornton. Music by the Glee Club. Recitation by Miss Gertrude Hershberger. Music. "The Value of Having Some Aim in Life," Rev. J. F. Woldfarth, of Urbana. Song, by Prof. Hart's Glee Club.

FRIDAY MORNING SESSION.

Song, by Miss Shoemaker and Mr. Phillips. Paper, "Growing Potatoes," by James Smith. Song, by Miss Callie Fisher. Paper, "Bovine Tuberculosis," by Dr. M. R. Trumbower, State Veterinarian, of Sterling. Vocal solo, by Miss Maude Gessford. Address, "County Institutes," by F. M. Palmer, Clinton, President Illinois Farmers' Institute. Paper, "Improved Highways," by F. W. Beardsley, Gibson, Ill.

FRIDAY AFTERNOON SESSION.

Music. Paper, "True Woman," by Mrs. B. E. Dewall, White Heath. Vocal solo, Mr. Phillips. Paper, "Possibilities of Illinois Farming and the Future of Piatt County," by W. E. Lodge, of Monticello. Music by Glee Club. Address, "Agricultural Press," David Ward Wood, Chicago. Song, C. N. Brown, Decatur. The officers elected to take charge of the next institute are as follows: President, W. H. Kratz, Monticello; Vice-President, Phillip Dobson, Cerro Gordo; Secretary, F. V. Dellatash, Monticello; Treasurer, C. W. Platt, Goose Creek.

The Piatt County Farmers' Institute was organized in 1880. The last institute was held at Monticello, Thursday, February 6, 1896, under the following management: President, W. H. Kratz; secretary, C. A. Tatman; treasurer, O. W. Moore, all of Monticello. The programme of the last institute was as follows: Piano solo, Prof. Schaff, of Decatur. Vocal solo, C. N. Brown, Decatur. Song, "Where the Wild Flowers Bloom," by Hart's Quartette. Prayer, Rev. M. E. Todd. Address of welcome by Mayor Britton. Bass solo, "The Monk," by Prof. Schaff. "Farm Management," by Thomas Lamb, Jr., Bement. "The Effect of the Low Prices of Grain Upon the Towns," by Judge Davidson. "How to Run the Paper," by W. S. Krebs. Piano solo, by C. N. Brown, of Decatur.

AFTERNOON SESSION.

Music by male quartette. Recitation, Miss Lelia Smith, Monticello. Duet, Miss Schumaker and Mr. Brown. "Landlord and Tenant," by Phillip Dobson, Cerro Gordo. "The Tenant Farmer," by J. N. Rodman. Discussion by C. P. Yates, A. J. Williams, W. M. Dewees and Robert Hodgson. Song, by Miss Callie Fisher. "Our Rural Schools," by J. H. Martin, County Superintendent of Schools. Discussion by Mrs. Mary Keed Deghton, ex-County Superintendent of Schools. Song, Miss Gessford, of Deland.



C. A. TATMAN, Secretary.

Pike County Farmers' Institute.



C. G. WINN, President.

Afternoon session, 1:30 p. m.

Paper—"The Hog and its Value," A. J. Lovejoy, Roscoe, Ill. Paper—"Forage Plants," L. F. King, Huntville, Ill. Paper—"Butter making," Mrs. H. Cohenour, Pittsfield, Ill. Paper—"Raising and Marketing Poultry," Mrs. Harden Westlake, Pittsfield, Ill.

Evening session, 7:30 p. m.

Music. Paper—"Benefits to be Derived from Farmers' Institutes," Rev. N. L. Burton, Griggsville, Ill. Music. Paper—"Why the Boy Should Stay on the Farm," Rev. L. D. Goodin, Griggsville, Ill.

THURSDAY, JANUARY 9, 1896.

Morning session, 9:30 a. m.

Opening with prayer, Rev. L. D. Goodin. Paper—"Farm Law," F. C. Perrick, Quincy, Ill. Paper—"Maintenance of Soil Fertility," C. G. Hopkins, Chemist, Champaign University. Paper—"Cattle," by W. H. Fulkerson, Jerseyville, Ill. Paper—"Some Mistakes and Farm Leaks," A. P. Grout, Winchester, Ill.

The meeting was then turned over to the Horticultural Society of Central, Ill., who held a day and one half meeting, with a very interesting programme.

The next meeting of the institute will probably be held in Pittsfield. The date is not yet fixed.

Institutes have been held in Pike county for the last six years, alternating between Griggsville and Pittsfield, a local committee in each place taking charge of and managing each meeting by getting up the programme, fixing dates and electing the officers after the place was selected. The last one was held in Griggsville, and was under the management of Richard Perry, C. M. Simmons, Dr. T. M. Watson and C. G. Werin. The following officers were elected: C. G. Werin, President; John George, Secretary, Robert Anderson, Treasurer. The date of the Institute was January 8 and 9, 1896. The largest attendance was present of any Institute ever held in the county—an average of over 400 at each session. The following was the programme:

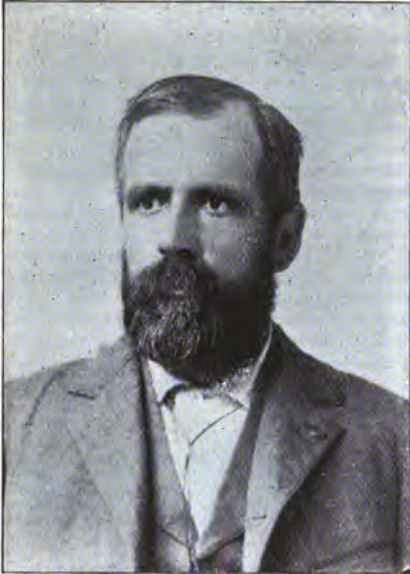
WEDNESDAY, JANUARY 8, 1896.

Opening 9:30 a. m., with prayer by Rev. A. C. Armentrout. Election of officers. Paper—"Causes of Agricultural Depression," by A. G. Chamberlain, Barry, Ill. Paper—"The Horse, its Use and Outlook," by Dr. Robbins, Carthage, Ill.



JOHN GEORGE, Secretary.

Randolph County Farmers' Institute.



G. W. WILSON, President.

Evening session.

Song, by the Brown Brothers. Prayer, by Rev. Wylie. Song, by the Brown Brothers. Paper, Education Needed on the Farm, by Prof. S. B. Hood. Paper, Poultry on the Farm, by S. S. Johnson, of Pinckneyville. Discussion, by Rev. Wylie and Captain Mann.

FRIDAY.

Morning session.

Prayer, by Rev. Wylie. Song, by the Glee Club. Paper, Fruit Culture in Southern Illinois, by G. R. Tate, Smithton. Discussion, by J. B. Matthews and John Hagedorn. Paper, Does the Hog Keep the Farmer or the Farmer Keep the Hog, by W. J. White, of Cutler. Paper, How May We Improve Our Roads, by Mr. James Allen, Sparta. Discussion, by John Peer and John Hagedorn.

Afternoon session.

Songs by the Glee Club. Paper, Ensilage and Forage Crops, by Elmer McKelvey. Discussion, by G. W. Wilson, J. F. Blair, W. C. Craig and J. C. Boyle. Paper, Permanent Roads by Mr. T. P. Stephenson. Address, by Hon. N. J. Coleman, St. Louis, Mo.

The following officers were elected for the ensuing year: President, George W. Wilson; secretary, S. S. Taylor; treasurer, J. H. Moreland, all of Sparta; executive committee, J. M. Clark, Sparta; J. A. Caldwell, Tilden; and S. W. McKelvey, Sparta.

The Randolph County Institute held its first meeting under the present law at Sparta, February 27 and 28, 1896, under the following management: President, George W. Wilson; secretary, S. S. Taylor, and treasurer, J. H. Moreland, all of Sparta. The meeting was an unqualified success.

The programme of the meeting held in Sparta Opera House was as follows:

THURSDAY.

Morning session.

Song by the Glee club. Prayer by Rev. C. N. Cate. Address of welcome, Judge S. L. Taylor. Response, T. T. Finley. Paper, Do Creameries Pay the Farmer, by J. M. Clark. Discussion, by M. A. Dennis, James Allan and Alvin Blair.

Afternoon session.

Song by the Glee club. Paper, Planting and Caring for Strawberries and Raspberries, by J. B. Mathews, Marissa. Paper, Poland-China Hog, by G. H. Helms, Belleville. Paper, How to Sow Clover, by J. B. Matthews. Discussion, John Maxwell and M. A. Dennis. Paper, Individual and National Inconsistency, by A. B. Ogle, of Belleville.



S. S. TAYLOR, Secretary.

Sangamon County Farmers' Institute.



JOHN UPTON, President.

The present organization was completed in 1892, and institutes have been held at Springfield as follows: March 15-16 and December 7-8, 1892; March 22-23 and December 22-23, 1893; April 3-4 and December 4-5, 1894. The last institute was held in the court house, Springfield, December 4-5, 1895, under the following management: President, John Upton; vice president, D. A. Brown; treasurer, L. H. Colman, all of Springfield, and James A. Stone, secretary, Bradfordton, Ill.; executive committee, D. W. Smith, B. F. McVeigh, Henry Turley, W. S. Dyer, E. F. Iles and Charles F. Mills, all of Springfield; B. F. Workman, Auburn; William Stitt, Pleasant Plains, and B. F. Buckman, Farmingdale. The programme of the institute meetings held December 4-5, 1896, is as follows:

WEDNESDAY, DECEMBER 4, 1895.

Morning session, 10 o'clock a. m.

Music. Prayer, A. Lewis. President's opening address, John Upton. Reading minutes by secretary, James A. Stone. Report of treasurer, L. H. Coleman. Music. Corn, its Cultivation and Uses, Stuart Brown: discussion, G. W. Dunseth, F. Ernst, J. Smith. Poultry on the Farm, Miss Hattie Ballard.

Afternoon session, 2 o'clock p. m.

Music. Our public Highways, D. W. Smith: discussion. Farm Trespassers, Charles E. Selby: discussion. Music. Farm Insurance, B. F. Workman: discussion, James A. Stone, J. M. Bell, W. T. Hall, E. D. Boynton, A. Graham. Farmers' Garden and Berry Patch, J. W. Cogdell, discussion.

THURSDAY, DECEMBER 5, 1895.

Morning session, 10 o'clock a. m.

Music. Management of Swine, J. D. Waters: discussion, B. F. Kelly, F. K. Springer, Geo. A. Hobkirk, W. P. Thayer. Sheep Breeding, F. D. Nunes: discussion. Music. Farm Fences, Hedge and Live, J. V. Lattner: Wire, Board, etc., L. F. Chilton: discussion. Fruit Interests, Central Illinois, T. E. Goodrich, President State Horticultural Society: discussion. Recitation, William A. Southwick.

Afternoon session, 2 o'clock p. m.

Our Railroads, S. P. Wheeler: discussion, H. R. Davis. Our Manufactories, Charles Riegely: discussion, C. C. Brown, John McCreary. Our Country Schools, S. M. Inglis, State Superintendent Public Instruction: discussion, A. M. Brooks, J. B. Collins. Future of Sangamon County, J. O. Humphrey: discussion. Clays of Sangamon County and their Value, Joseph Stafford: discussion, A. L. Converse. Sangamon County at the State Fair, G. W. Dunseth: discussion, W. S. Dyer, F. D. Boyd, A. M. Archer, Mrs. A. M. Coffman.

The next meeting of the Sangamon County Farmers' Institute will be held at Auburn, Wednesday and Thursday, October 21 and 22, 1896, under the auspices of the officers-elect, viz.: President, B. F. Workman, Auburn; vice president, A. L. Converse, Springfield; secretary, James A. Stone, Bradfordton; treasurer, L. H. Coleman, Springfield; executive committee, B. F. Workman, A. L. Converse, James A. Stone, L. H. Coleman, B. F. Buckman, Farmingdale; Charles F. Mills, Springfield; Geo. W. Dunseth, Waverly; Chas. E. Vigil, New City, and Horace Laudon, Auburn.



JAMES A. STONE, Secretary.

Schuyler County Farmers' Institute.



JAMES A. TEEL, President.

WEDNESDAY, NOVEMBER 6, 1895.

• Morning session 10 a. m.

Music, instrumental. The Future of Schuyler County, Rev. John Knowles. Flowers, Miss Millie Greer. The Sheep Problem, J. H. Boice. Music, Grange Choir. The Student Farmer, L. F. King. The Effects of Tile Drainage—discussion opened by John McCabe. Music, instrumental.

Afternoon session, 1:30 p. m.

Music, Frank Busby and others. Election of Officers. Recitation, Master George Ritchey. What is Our Most Profitable Grass Crop?—discussion opened by G. R. Schultz. Is Enthusiasm Necessary to Successful Farming?—Hon. G. W. Dean. Music, Frank Busby and others. Recitation, Mrs. Della Thompson. How to Keep our Boys on the Farm—discussion opened by J. H. Patton. Fruit Culture, J. L. Odenweller. The Dairy Interests and its Protection, Hon. James A. Teel. Music, instrumental.

Evening session.

Music, Normal Quartette. Recitation, Myer Wells. The Farmer's Wife and Home, Mrs. M. L. Peckenpangh. Sociability Among Farmers, C. C. Grosclaude. Question Box—open discussion. Closing song by audience. Benediction, Rev. J. B. Horney.

The time of holding next meeting has not as yet been definitely fixed.

The following officers were elected at last meeting to serve one year: President, James A. Teel; Vice President, L. F. King; Secretary, H. H. Brown; Treasurer, W. J. Thompson.

The Schuyler County Farmers' Institute organization was effected in 1894, and institutes have been held at the court house in Rushville as follows: Jan. 16-17, 1894; Feb. 5-6, 1895; Nov. 5-6, 1895. The last institute was held under the management of the following officers: President, James M. Teel, Rushville; Vice President, L. F. King; Secretary, J. W. Whitson, Rushville; Treasurer, J. E. Thompson.

The programme of the last institute, held Nov. 5-6, is as follows:

TUESDAY, NOVEMBER 5, 1895.

Morning session 10 a. m.

Music. Invocation, Rev. James Dewitt. Music, instrumental. Address of welcome, John Beatty, Jr. Response, E. B. Dixon. Music, Male Quartette.

Afternoon session 1:30 p. m.

Music, instrumental. Recitation, Jessie Chitwood, The Benefits of Farmers' Institutes, Hon. G. W. Dean of Adams. The Farmer's Ice House, M. W. Greer. Rotation of Crops—discussion opened by John Wetzel. Music, Grange Choir. The Benefits of Organization among Farmers, H. H. Brown. Oration—The Horse, Master George Ritchey. Question Box, open discussion. Music, instrumental.

Evening session.

Music, Normal Quartette. The Future Outlook for the Farmer, Hon. U. A. Wilson. The Better care of Dairy Cattle, G. H. Mason. Music, Frank Busby and others. The Effect of a Country's Finances on its Farms, J. E. Wyand. Music, Male Quartette.



J. W. WHITSON, Secretary.

Stark County Farmers' Institute.



GEORGE MURRAY, President.

Afternoon session.

Appointment of Committee on Organization. Cultivation of Corn, E. S. Fursman, El Paso. Discussion, J. H. Coolidge, Galesburg. Comparative Feeding Value of our Farm Products, J. H. Coolidge, Jr. Highways, Henry H. Oliver. Discussion, T. D. Church. R. J. Dickinson. Horticulture, T. D. Church. Discussion, Irvin Ingles, J. H. Coolidge, E. S. Fursman.

FRIDAY, FEBRUARY 21, 1896.

Morning session.

Prayer, Rev. George A. Francis. Horticulture E. S. Fursman. Discussion, T. D. Church, Irvin Ingles, W. R. Sandham.

Afternoon session.

Our Education; What Shall It Be? W. R. Sandham, County Superintendent of Schools. Cost of the Production of Corn, E. S. Fursman. The Farmer's Orchard, Irvin Ingles. Discussion, T. D. Church, E. S. Fursman. Diseases of American Live Stock, and their Effect on our Export Trade, H. A. White, D. V. S. Report of Committee on Organization.

The next institute meeting of this county will be held during the week commencing January 25, 1897, under the auspices of the officers elected, viz.: President, Henry H. Oliver, Elmira; Secretary, Joseph Chase, Toulon; Treasurer, A. J. Finley, West Jersey; Vice Presidents and Executive Committee, George D. Slygh, Toulon; Lewis C. Egbert, West Jersey; Simon Cox, Wyoming; John A. Colgan, Wyoming; James E. Snare, Castleton; Cyrus Boccock, Bradford; George Murray, Elmira; T. D. Church, LaFayette.

The Stark County Farmers' Institute was organized at Toulon on September 21, 1895, and institutes have been held as follows: October 19, 1895, and February 20 and 21, 1896. The last institute meeting being held at the court house in Toulon, Ill., on the 20th and 21st of February, 1896, under the following management; President, Hon. George Murray, of Elmira; Vice President, John A. Colgan, Wyoming; Treasurer, A. J. Finley, West Jersey; Secretary, Joseph Chase, Toulon; Executive Committee, D. K. Fell, Newton Smith and John H. Ogle, all of Toulon; Wm. C. Redding, Castleton; F. J. Liggett, Bradford.

The programme of the institute meeting held at Toulon October 19, 1895, is as follows: Address, Clover, the Farmer's Best Friend, I. N. Heaps. Discussion, John A. Colgan, J. C. Copestake, Joseph C. Atherton, H. H. Oliver, George T. Oliver. Dairy Cattle, Dr. J. C. Copestake. Discussion, Henry Nowlan, H. H. Oliver, Eugene Nowlan, I. N. Heaps. Sheep, H. H. Oliver. Discussion, John A. Colgan. Beef Cattle, William Peterson. Discussion, J. C. Copestake, I. N. Heaps.

The programme of the last institute meeting, held at Toulon on February 20th and 21st, 1896, is as follows:

THURSDAY, FEBRUARY 20, 1896.

Morning session, 10:30 o'clock a. m.

Prayer, Gus Hulsizer. Address of Welcome, Dr. W. T. Hall. Response, Irving Nowlan. Insurance, James Haswell, Secretary of Mutual Farm Insurance Company.



JOSEPH CHASE, Secretary.

Stephenson County Farmers' Institute.



J. W. Stocks, President.

Evening session, 7:30 p. m.

Song—"Star of Descending Night." Address of welcome, Hon. James P. Younger. Response, D. F. Thompson, Kent, Ill. Music. Paper—"Sunshine and Shadow of Farm Life," Mrs. L. G. Chapman, Freedom, Ill. Solo, Mrs. F. Warner, Bolton, Ill. Paper—"The Farmer as a Patriot," J. B. Robinson, Ph. D., D. D., Lena, Ill. Song—"Hayseed in His Hair or the Farmer Getting There," Quartet.

FRIDAY.

Morning session, 9:30 a. m.

Music. Paper—"Corn as a Fodder Plant," S. M. Mulnix, Damascus, Ill. Duet, Mrs. Warner and Miss Best. Paper—"Feeding Value of Corn Fodder," W. A. Powers, University of Illinois. Song—"Chiming Bells," "The Corn Harvester," "The Corn Shredder," "Devices for Loading Shocks."

Afternoon session, 1 p. m.

Election and report of committees. Duet—Misses Waters and McCracken. Paper—"Points on Poultry," Mrs. Andrew Taylor, Harlem, Winnebago county, Ill. Paper—"The Weed Question," D. Cotherman, Rock City, Ill. Song—"Hark, the Song of Jubilee," Paper—"The Farmer's Child in the Public School," Mrs. H. E. Confer, McConnell, Ill.

Freeport, Ill., has been designated as the next place to hold Institute. The time has not been fixed. The next officers in charge of Institute are: President, J. W. Stocks, Eleroy, Ill.; Treasurer, F. B. Walker, Dakota, Ill.; Secretary, S. M. Mulnix, Damascus, Ill.; Asst. Secretary, L. M. Swanzy, Ridott, Ill.; Executive Committee—George Swartz, Freeport, Ill.; Samuel Merkel, Freeport, Ill.; Chas. Saxby, Freeport, Ill.

The first Farmers' Institute of Stephenson county was held February 13-14, 1895, at Y. M. C. A. Hall, Freeport, Ill.; second and last Institute held January 30-31, 1896, court house, Freeport, Ill. Institute organized at court house, Freeport, Ill., November 10, 1894. Officers of last Institute: President, W. T. Lamb, Ridott, Ill. Treasurer, F. B. Walker, Dakota, Ill. Secretary, L. M. Swanzy, Ridott, Ill. Executive Committee—Geo. Swartz, Freeport, Ill.; Samuel Merkel, Freeport, Ill.; Chas. Saxby, Freeport, Ill. The programme of the meeting is as follows:

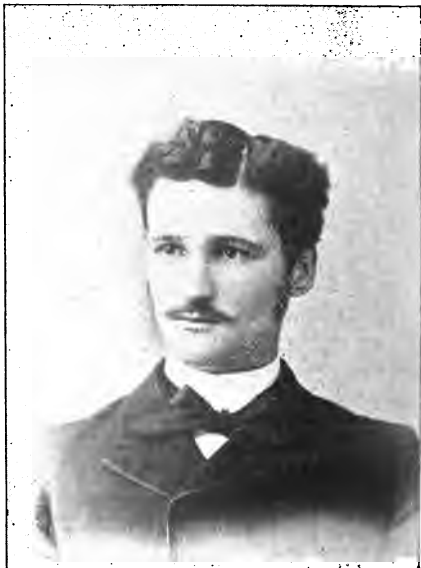
THURSDAY.

Morning session, 10 a. m.

Prayer. Song—"Old Farmer John." Objects of the Institute, President. Appointing of committees. Treasurer's report. "Cultivation to Prevent Evaporation from the Soil," H. R. Cotta, Freeport. Song—"The Old House at Home," "Water and Vegetation," T. J. Burrill, Ph. D., L. L. D., Champaign. Song—"The Trumpet."

Afternoon session, 1:30 p. m.

Song—"The Whistling Farmer Boy." Paper—"Organization Among Farmers," Hon. G. W. Curtiss, Stockton, Ill. Paper—"The Farmer's Wife," Mrs. G. W. Shippy, McConnell, Ill. Song—"Swanee River." Paper—"Reproduction and Distribution of Plants," T. J. Burrill, Ph. D., L. L. D., Champaign, Ill. Paper—"Veterinary Question Box," Dr. F. D. Yeager, Lena, Ill. Paper—"The Morgan Horse," H. B. Gorham, Freeport, Ill.



S. M. MULNIX, Secretary.

Tazewell County Farmers' Institute.



RALPH ALLEN, President.

The present organization was completed January 14, 1896. The institute was held in Armory Hall, Delavan, January 14, 15 and 16, 1896, under the following management: President, Ralph Allen; vice-president, J. G. Hoghton; treasurer, James L. Reid, and J. O. Jones, secretary, all of Delavan, Ill.; executive committee, R. O. Brawner, John Ryan, Levi Orendorff, H. A. Bailey, J. W. Crabb, all of Delavan, and N. T. Nichols, San Jose. The programme of the institute meetings held January 14, 15 and 16, 1896, is as follows:

TUESDAY, JANUARY 14, 1896.

Morning session, 10 o'clock a. m.

President's opening address, Ralph Allen. Appointment of committee on permanent organization to report Thursday afternoon, as follows: T. T. Heaton, J. G. Hoghton and C. E. Schureman.

Afternoon session, 2 o'clock p. m.

Sheep Husbandry, C. E. Schureman. Corn, and How to Grow It, J. L. Reid. Management of Beef Cattle, Luke Bennett. Public Highways, J. A. Mason and C. W. Waltmire. Should Farmers be Educated, Prof. F. L. Calkins.

WEDNESDAY, JANUARY 15, 1896.

Morning session, 10 o'clock a. m.

Recitation, Waking the Young Ones, Gwendolen Hackney. Butter Making, Mrs. W. H. Pawson. Household Economy, Mrs. W. R. Curran, of Pekin, Ill. Grasses, paper sent by Prof. C. E. Chester of Champaign, and read by J. O. Jones, secretary.

Afternoon session, 2 o'clock p. m.

Potato Culture, Peter F. Johnson. Kitchen Garden, J. B. Allen, and a general discussion of the subjects by all.

THURSDAY, JANUARY 16, 1896.

Morning session, 10 o'clock a. m.

Papers on the Raising of Poultry were read by C. F. Joysslin, of Morton and H. C. Hunt, of Delavan. Hardships of a Farmer's Wife, Mrs. Wm. Bailey, of Dillin. Construction and Arrangement of Farm Buildings, Richard Connell, of Delavan. Mr. A. M. Caldwell, of New Holland, gave an interesting talk on the raising and fattening of hogs.

Afternoon session, 2 o'clock p. m.

Report of the committee on permanent organization, as follows: President, Ralph Allen, of Delavan; vice-president, Jake Puterbaugh, of Mackinaw; secretary, J. O. Jones, Delavan; executive committee, Levi Orendorff, W. Armington, J. G. Hoghton, C. E. Schureman, of Delavan; A. B. Sperry, of Allentown; Valentine Graff, of Minier; W. H. Bates, of Pekin; C. Spring, of Washington; Hon. D. W. Vitum, of Canton; Mrs. N. Hall and Mrs. W. N. Sunderland, of Delavan. On motion it was decided to let the executive committee fix the date of the next meeting. On motion meeting adjourned.

The Institute was very interesting and entertaining. In the interim between all discussions we were entertained with recitations and music. Miss Lulu M. Crabb gave a very interesting recitation entitled "The Old Way and the New." Her delivery was excellent and appreciated by all, showing wonderful ability in one so young in years. Miss Jessie Holmes gave a recitation which was enjoyed by all, she being quite an impersonator in her reading.

Col. J. W. Judy was down on the programme for a talk on farming, but owing to his inability to be with us, the president called on Mr. J. G. Hoghton, president of the Fair, to supply his place, which he did with credit to himself, proving to the people that he is the right man for the position he so ably fills.

The next meeting of the Institute will be held in Delavan, Ill., on January 12, 13 and 14, 1897. There seems to be a great deal of interest taken in these meetings, and we expect to make the next one a meeting of great importance and lasting benefit to all participants and the people generally.



J. O. JONES, Secretary.

Wabash County Farmers' Institute.



J. B. STROH, President.

Home, Mrs. J. O. Wood. Discussion. The Future of Horse Breeding, Hon. John Landrigan. Discussion. Utilization of the Corn Crop, L. J. Rigg. Discussion. Music.

Evening session 7:30 p. m.

Music. Prayer, Rev. J. H. Severson. Individual and National Inconsistency, A. B. Ogle. Recitation, Miss Laura Harvey. Home Literature, Mrs. Robert Bell. Our Public Schools, Their Future, J. E. Ramsey. Discussion. Recitation, Miss Sallie Stevenson. Music.

THURSDAY, MORNING SESSION, 9 a. m.

Music. Prayer, Rev. W. R. Lowe. Farm Pests, Dr. J. Schneck. Discussion. Farmers' Organizations, J. H. Elward. Discussion. Cattle Feeding, S. S. Seiler. Discussion. Music.

Afternoon session 1:30 p. m.

Music. Prayer, Rev. L. J. Ehrhardt. Farm Dairying, S. A. Williams. General Discussion. Music. Adjournment.

The next meeting of the Wabash County Farmers' Institute will be held at Mt. Carmel, Thursday and Friday, December 3 and 4, 1896.

Wabash County Farmers' Institute was first instituted under the auspices of Wabash County Pomona Grange, and the present organization was completed Dec. 18, 1895, with the following officers elected for the ensuing year: President, J. B. Stroh; vice-president, Hallock Shearer; secretary, S. S. Seiler; treasurer, James Mahon; all of Mt. Carmel; executive committee, J. E. Seiler, Mt. Carmel; Martin Stevens, Lancaster; Wm. Marvel, Mt. Carmel; Abner Sheppard, Friendsville, Ill.; Wm. Shaffer, Keensburg. The programme of the institute meeting held December 18 and 19, 1895, is as follows:

WEDNESDAY, MORNING SESSION, 9:30 a. m.

Organization. Appointment of committees. Opening prayer, Rev. J. F. Harmon. Address of Welcome, Mayor R. S. Gordon. Response, A. B. Ogle, Belleville. Report of Committee on Organization.

Afternoon session 1:30 p. m.

Music. Prayer, Rev. J. H. Mallerick. Plant Life and Growth, F. J. Burrl, P. H. D. Horticulturist and Botanist. Discussion. Country



S. S. SEILER, Secretary.

Wayne County Farmers' Institute.



E. A. RANKIN, President.

Davenport, of the State University, Champaign, spoke on Soil and Soil Fertility. Discussion. J. A. Carrothers, Best Methods of Handling Corn-fodder. Discussion.

Friday evening, 7:30.

Paper, L. V. Beal, Mt. Vernon, Ill., Director of Illinois Farmers Institute, What the County Institutes are Doing for the Farmer. Discussion. Dr. Berry, of Carmi, Ill., Superior Keeping Qualities of the Ben Davis Apple Grown on Wayne County Soil. Discussion. Prof. Davenport, State Agricultural College, What the Agricultural College is Doing for the Farmers' Boys.

SATURDAY, 10 A. M.

Prayer by Rev. Latbam, of C. P. Church. Paper, L. N. Beal, Lack of Small Fruit on the Farm. Paper, Mrs. Beal, Common Things of Life. Paper, Albert Stine, Cattle Breeding. Paper, James Kindie, Sheep Breeding.

1 o'clock p. m.

Paper, S. H. Anderson, Mt. Vernon, Ill., Hog Breeding. Discussion, Mark Bradshaw. 2 p. m. Dr. Berry, Droughts, Their Causes and Prevention. J. R. Parks, Our Public Roads.

The next meeting of the Wayne County Farmers' Institute will be held in Fairfield, Nov. 24 and 25, 1896, under the auspices of the original officers, at which time the first annual election of officers will be held.

The Wayne County Farmers' Institute was organized November 30, 1895. First annual meeting January 24 and 25, 1896, was held in Court House at Fairfield by the following original officers: President, E. A. Rankin; Vice-President, S. W. Stewart; Secretary, W. C. Davis, all of Fairfield; Treasurer, J. B. Cable, Boyleston; Executive Committee, D. K. Davis, J. D. Carter, Henry H. Stewart, Fairfield; J. B. Cable, Boyleston; M. O. Deem, Jeffersonville. Programme rendered at institute was as follows:

FRIDAY, JANUARY 24, 1896.

Morning session, 10 o'clock.

Prayer and address of welcome by Mayor F. E. Nancy. Response by President E. A. Rankin. Rules of membership were read, i. e.: Any person may become a member of the Wayne County Farmers' Institute by signing these articles, who resides on a farm and is engaged in farming, stock-raising or school teaching. All farmers present signed the membership roll.

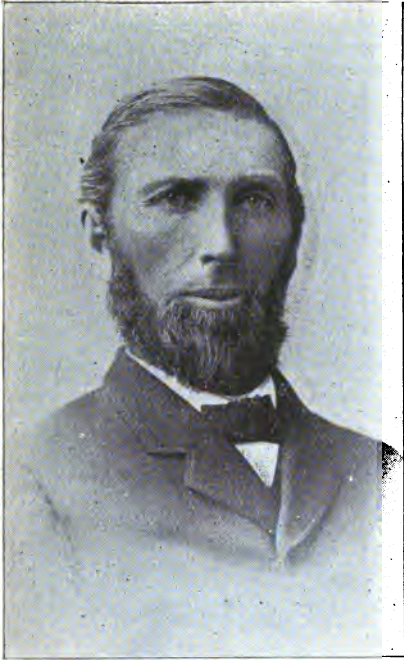
Friday, 1 o'clock p. m.

Robert Mitchell, of Princeton, Ind., spoke on the manner of conducting and the benefits of Farmers' Institutes. 1:30 p. m.: Prof. Eugene



W. C. DAVIS, Secretary.

Will County Farmers' Institute.



A. A. FRANCIS, President.

Have Legislation in the Interest of Pure Food? A. S. Mather. Vocal solo, Miss Anna H. Francis. Our Country's Needs as Viewed by Farmers' Wives, Mrs. M. D. Morrison. Music, Prof. Wollett. Fruit Farming, R. W. Garrett; discussion.

Evening session.

Music. The Farmers' Institute and Its Benefits, J. H. Alexander. Vocal solo, Miss Anna H. Francis. The Progressive Woman, Mrs. Winifred Godley. The Manufactures of Will County, Wm. Garrett.

FRIDAY, FEBRUARY 14.

Morning session, 9:50 o'clock a. m.

Prayer, Rev. Strout. Music. Agricultural Education, and How to Obtain It, Wilson F. Smith; discussion. Maintaining the Fertility of the Farm, William Carruthers; discussion. Reading, Miss Birkett. Cello solo, Prof. Wollett. Alfalfa for Pig Pasture, H. B. Phelps. Discussion. Are the Agricultural Statistics of the United States Beneficial to the Farmers, James Patterson; discussion.

Afternoon session.

Recitation, Miss Annie Clow. Music. The Home, Mrs. A. S. Clow. The Future of Will County, H. A. Stassen. The Torrens Land Law, Judge C. B. Garney; discussion. Household Economy, Mrs. H. M. Dunlap. Vocal solo, Mrs. Lovejoy. Recitation, Miss Gertrude Jarman. Music. Threshing and Threshing Machines, Wm. Reid. Discussion. Recitation, Miss Clow.

The Will County Farmers' Institute was organized February 9, 1888, and meetings have been held in Joliet as follows: March 8, 1888; October 11, 1888; January 17, 1889; March 7-8, 1889; October 24-25, 1889; February 13-14, 1890; January 23-24, 1891; February 27-28, 1891; October 23-24, 1891; February 18-19-20, 1892; February 16-17-18, 1893; February 8-9-10, 1894; February 7-8-9, 1895; February 13-14-15, 1896.

The last Institute was held in Armory Hall, Joliet, February 13-14-15, 1896, under the following management: President, A. Allen Francis, New Lenox; secretary and treasurer, Healey H. Alexander, Lockport; executive committee, Thomas Tait, Joliet; James Patterson, Hoddam; H. H. Stassen, Joliet; A. Allen Francis, Abel Bliss, New Lenox; John C. Baker, Manhattan; J. H. Alexander, Lockport; Wm. H. Goodspeed, Wilton Center; A. S. Clow, East Wheatland; O. E. Higgins, Dupage P. O.

Following is the programme of the fourteenth regular session, held February 13-14-15, 1896:

THURSDAY, FEBRUARY 13, 1896.

Morning session, 11 o'clock a. m.

Prayer, Rev. Lovejoy. Music. Crandall's string quartette. Address of welcome, Mayor E. C. Akin. Response, J. M. Thompson. Music. Appointment of Committee on Resolutions.

Afternoon session, 1:20 p. m.

Music. Tuberculosis, E. S. Fry, M. D. C. Instrumental solo, Miss Cora Collins. Should We



H. H. ALEXANDER, Secretary.

Christian County Farmers' Institute.



HARRY GRUNDY, President.

The Christian County Farmers' Institute was organized in January, 1891, at Pana. Five profitable institutes have been held as follows: January, 1891; January, 1892; January, 1893; January, 1894; January, 1895, and January 15-16, 1896, at Pana.

The last institute was held by the following named officers: President, Harry Grundy, Morrisonville; Vice President, George Large, Owaneco; Secretary, John W. Hunter, Owaneco; Treasurer, George G. Large, Owaneco; Executive Committee, Richard Stone, Stonington; William Dalby, Mary Dalby and Mrs. Almeda Simpson, the last three of Taylorville.

The programme of the late meeting, held in Vandever's Opera House, Taylorville, January 23-24, 1896, is as follows:

THURSDAY, JANUARY 23, 1896.

Morning session 10 a. m.

Organization. Invocation, Rev. Boyer. Address of Welcome, Mayor Temple. Response, H. N. Schuyler. Report of committees.

Afternoon session, 1 p. m.

Music. The Breeding and Feeding of Cattle for Profit, opened by Lewis H. Thompson, Farmersville, followed by C. G. Wilson, Edinburg; M. G. Okey, Millersville; Ben Johnson, Owaneco; W. D. Coffman, Taylorville; William Lomis, Morrisonville. The Breeding and Feeding of Hogs for Profit, opened by Q. I. Simpson, Palmer, followed by Col. T. B. Hart, Edinburg; W. S. Kirkbride, Rosemond; H. O. Minnis, Sharpsburg; E. S. Hurlbutt, Stonington; James E. Gowling, Harvel. The Future of the Sheep, opened by Col. Dick Owaneco; Harry Grundy, Morrisonville; Ben Carper, Rosemond. To What Extent Should Fruit (large and small) be Grown on the Farm, opened by Edgar Clarke, Pana, followed by Sylvester Schrantz, Stonington; J. W. Kitchell, Pana; S. S. Kanaga, Taylorville; Wm. H. Ives and A. D. Webb, Taylorville.

Evening session, 7:30 o'clock.

Music. Address—Insect Ravages and Remedies, by Prof. S. A. Forbes, State Entomologist of the State University, Champaign, Ill., followed by general discussion.

FRIDAY, JANUARY 24, 1896.

Morning session, 9 o'clock.

Prayer, W. W. Weedon. Music. The Future of the Horse, opened by S. C. Wagener, Pana, followed by James Simpson, Palmer; George Wagoner, Morrisonville; George Adams, Morrisonville; John Alderson, Morrisonville. Value of Rotation of Crops, opened by Robert Fulton, Taylorville, followed by Mark Slowman, Zenobia; Israel Baughman, Grove City; T. C. Cloyd, Morrisonville; Melvin Sadler, Grove City. The Best Management of Fowls, opened by Fred Grundy, Morrisonville, followed by Mrs. C. W. Sibley, Pana; Mrs. Edward Sands, Morrisonville; T. M. Perkins, Morrisonville; Mrs. P. L. Myers, Assumption.

Afternoon session, 1:30 o'clock.

Music. Election of officers. Farmers' Mutual Insurance, opened by Charles F. Mills, Springfield, followed by D. J. Kidge, Assumption. The Best Plan for Improving the Public Roads in Christian county, opened by Col. W. T. Baker, Taylorville, followed by E. A. Vandever, Taylorville; R. A. Gray, Blue Mound; Chas. Cheney, Taylorville; P. L. Myers, Assumption.

Evening session, 7:30 o'clock.

Music. Address—The Farmers' Interest in the Public Schools of Illinois, by Prof. Andrews, of Taylorville, followed by Prof. L. S. Ham, Pana. Music. What Constitutes a Model Home with Reference to its Prosperity and Happiness. Address, Lindsey Reece, Taylorville. Paper, Miss Maud Temple. Paper, Master George Wilson, Morrisonville.

The next institute in this county will be the Congressional Institute for this district, appointed for February 17-18, 1897, at Taylorville, under the auspices of the officers of the Christian County Institute, viz.: President, Harry Grundy, Morrisonville; Vice President, William Sibley; Secretary, Q. I. Simpson, Palmer; Treasurer, George G. Large, Owaneco.

Madison County Farmers' Institute.



E. W. BURROUGHS, Secretary.

Edwardsville. Recitation, Amy Jeffress. Only These, Quartet.

Farmers' Institutes have been held in this county as follows: April 11, 12 and 13, 1893, at Edwardsville; January 9, 10 and 11, 1894, at Highland; December 16 and 17, 1894, at Bathalto; December 10 and 11, 1895, at Edwardsville. The last meeting was held under the following management: President, John M. Pearson, Godfrey; secretary, E. W. Burroughs; treasurer, Julius Renehart, Grantfork. Executive Committee, president, secretary, treasurer and Joel Williams, Bethalto, and Frank Troeckler, of Mitchell. The programme of the meeting is as follows:

TUESDAY, DECEMBER 10, 1895.

Morning session, 9:30 o'clock a. m.

Address of Welcome, Mayor Wm. R. Prickett. Response, Hon. John M. Pearson, Chairman Executive Committee. Election of permanent organization and appointment of committees. The Education of the Farmer, Norman G. Flagg, of Liberty Prairie.

Afternoon session, 1:30 o'clock p. m.

Fences, Judge Wm. H. Krome, of Edwardsville. Potatoe Culture on Upland, R. N. Fangeroth, of Edwardsville. Potatoe Culture on Bottom Land, Oliver Pettingill, of Chouteau. (Discussions will follow all papers).

Evening session, 7:30 o'clock p. m.

Song, Sicilian Twilight. Misses Metcalfe and Springer; Messrs. Terry and Tinnell. Farm Life's Teachings, Miss Phoebe Montgomery, of

WEDNESDAY, DECEMBER 11, 1895.

How Best to Dispose of Farm Products, Albert Labhardt, of Highland.

Afternoon session.

The Teachings of Expert Investigation and Common Sense, Concerning the Chinch Bug, S. A. Forbes, State Entomologist. Corn Fodder and Ensilage, L. A. Spies, of St. Jacob. Report of Committees.

Pulaski County Farmers' Institute.



D. W. PRINDLE, President.

The Pulaski County Farmers' Institute was organized September 21, 1895, and the first institute was held October 26, 1895, at Villa Ridge, under the following management: President, D. W. Prindle; vice-president, C. Wessenberg; secretary, S. A. Colwell; treasurer, James Browner, all of Villa Ridge. Executive Committee, James Dille, S. H. Graves, J. H. Conant, J. H. Kruker and S. Harper, all of Villa Ridge. Two very interesting and instructive institute meetings were held, one in October, and one in December, at which the cultivation of grasses, raising pork and beef for profit, reclaiming worn out land and fertilizing with green crops, were fully discussed; and much interest manifested. During the coming winter we expect to take the matter up and carry it forward with greater energy and enthusiasm and consequently more good results.

Rock Island County Farmers' Institute.



THOMAS CAMPBELL, President.

This Institute was organized at Port Byron, in December 13, 1887. Institute meetings have been held as follows: Port Byron, December 13, 1887; Taylor Ridge, March 14, 1888; Port Byron, January 17, 1889; Taylor Ridge, February 5, 1889; Milan, February 19, 1889; Milan, January 10, 1890; Reynolds, January 24, 1890; Fairfield, February 23, 1890; Milan, December 18, 1890; Reynolds, January 8, 1891; Barstow, February 19, 1891; Port Byron, March 17, 1891; Milan, December 22 and 23, 1891; Port Byron, January 26 and 27, 1892; Barstow, February 19, 1892; Milan, March 10, 1892; Milan, December 20 and 21, 1892; Barstow, January 5, 1893; Port Byron, January 25, 1893; Edgington, February 9, 1893; Hillsdale, February 23, 1893; Milan, December 13 and 13, 1893; Barstow, January 5, 1894; Hillsdale, January 26, 1894; Edgington, February 13, 1894; Port Byron, February 27, 1894; Carbon Cliff, December 30 and 21, 1894; Fairfield, January 10, 1895; Edgington, January 24, 1895; Hillsdale, February 22, 1895; Barstow, December 11 and 12, 1895; Port Byron, January 3, 1896; Milan, January 30, 1896. In all thirty-three meetings.

Officers: President, Thomas Campbell, Rock Island; secretary, J. G. Osborne, Port Byron; treasurer, J. H. Vanderslice, Milan; executive committee, W. S. McCullough, Taylor Ridge; W. F. Crawford, Taylor Ridge; Wm. Letsch, Carbon Cliff; M. D. Hauberg, Hillsdale.

Programme of the last meeting is as follows:

THURSDAY, JANUARY 30, 1896.

Morning session, 10:30 a. m.

Music. Prayer, Rev. J. L. Palmer. Address of welcome, S. W. Heath. Response, Wm. F. Crawford. Profit in Dairying, A. A. Buffum. Discussion, led by Louis O. Jahns.

Afternoon session, 1:30 p. m.

Music. Subsoiling, L. B. Kubn. Discussion, led by W. S. McCullough. Some Mistakes and Farm Leaks, Wm. Moore. Discussion, led by John A. Wilson. A Money System for the People, J. G. Osborn. Discussion, led by W. F. Eastman.

Evening session, 7:30 p. m.

Music. Select reading. Moral and Educational Development on the Farm, E. B. McKeever.

The next meeting of the Institute will be held at Port Byron, January 19 and 20, 1897, and will probably be conducted by the above officers.

Whiteside County Farmers' Institute.



R. R. MURPHY, President.

The Whiteside County Farmers' Institute was organized at Morrison, Ill., September 21, 1896. The last institute was held January 30, in the court house at Morrisonville, under the following management: President, R. R. Murphy, Garden Plain; Vice-President, R. G. Hulett; Secretary, W. J. Johnson; Treasurer, H. L. Ewing, the last three named gentlemen of Morrison; Executive Committee, President, Treasurer and Wm. Bedell, A. S. Durward, of Ustick, and L. Dodd, of Morrison.

The programme of the meeting was as follows:

THURSDAY, JANUARY 30, 1896.

10 o'clock a. m.

Prayer, Rev. M. L. Norris, of Morrison. Minutes of last meeting. Appointment of Committees. Unfinished business. How shall we deal with the Russian Thistle and other noxious weeds? Discussion opened by E. P. Gibbs, of Lyndon, and Mark Lyon, of Tampico.

Afternoon session.

Report of H. L. Ewing, Delegate to State Meeting. The Culture of Winter Wheat. Subject presented and general discussion opened by Geo. E. Goodenough, of Union Grove; E. H. Kempster, of Portland, and Geo. Sawyer, of Erie. Our Dairy Interests. Harmon E. Burr, Union Grove; Wm. Beeswick, Clyde; Abram Calkins, Geneseo; A. L. Thompson, Fenton.

Evening session.

Music, Morrison Universalist Church Choir. Prayer, Rev. L. T. Bush, Morrison. Music, Morrison Mandolin Club. Recitation, Walter Burr, Union Grove. An Ideal Farm, A. N. Abbott,

Ustick. Song, Miss Pearl Nightser, Morrison. Fruits for the Farm, Mrs. L. M. Dodd, Mt. Pleasant. Music, Morrison Mandolin Club. Recitation, Miss Anna Mitchell, Mt. Pleasant. Fruit Canning, Mrs. F. D. Ramsay, Morrison. Our Poultry Interests, Geo. Kentfield, Morrison; P. M. Plummer, Prophetstown; W. B. Emmons, Rock Falls, and J. J. Huribert, Morrison. Song, Miss Pearl Nightser, Morrison. Recitation, Miss Daisy Belle Ward, Morrison. Farm Life, Miss Bessie Schmied, Portland. Music, America, sung by all, Universalist Church Choir leading.

FRIDAY, JANUARY 31, 1896.

Morning Session: Prayer, Rev. W. E. Leavitt, Morrison. Fruit Culture, C. R. Powell, Sterling; M. R. Kelly, Morrison; S. A. Maxwell, Union Grove; John Byers, Albany. Our Swine Interests, A. A. Church, Montmorency; Henry Wetzell, Hume; Charles Peck, Newton; Frank J. Miller, Jordan. Corn Fodder, Giles Green, Lyndon; S. L. Murphy, Ustick; Gilbert Rogers, Prophetstown.

Afternoon Session: Music. Election of officers. Reports of committees. Transaction of business. Music. Beef and Dairy Cattle, Chas. Sturtevant, Lyndon; Frank Royer, Hopkins; Hugh Shannon, Geneseo; John Cashner, Hahnman. Closing exercises. All join heartily in singing America. Committee having in charge the evening meeting: Mrs. W. J. Johnson, Mrs. Charles W. Mitchell, and Mrs. Clark C. Fuller. Committee on decoration of court room: L. E. Tuttle, R. Roy Davis, Geo. W. Howe, H. L. Brewer, Mrs. J. F. Happer, Mrs. S. R. Hall, Mrs. L. M. Bent, Mrs. Walter W. Warner, Mrs. John S. Green, Mrs. Oscar Woods. Committee on decoration to meet at 9 o'clock a. m., at the court house, Wednesday, January 29.

W. J. Burnett, of Morrison, dealer in musical instruments, has kindly consented to furnish an instrument for the occasion.

While this institute is held in the special interest of the farmers, everybody else is cordially invited to be present and enjoy the meeting. The next county institute, in all probability, will be held in Sterling.

Adams County Farmers' Institute.

The Adams County Farmers' Institute was organized in 1887. Institutes have been held as follows: May 23 and 24 and November, 1894; October 9-10, 1891; May 27-28 and November 18-19, 1892, all at Camp Point; November 24-25, 1893, and October 26-27, 1894, at Golden; and October 31 and November 1, 1895, at Plalville, Ill. Hon. George W. Dean served as President and Mr. C. S. Booth served as Secretary from 1887 to 1893, when Mr. S. N. Black, of Clayton, was elected President, J. A. Nevins, of Camp Point, Secretary, and J. C. Pearce, of Camp Point, Treasurer.

The programme of the Adams County Farmers' Institute, held at the Opera House, Clayton, Illinois, Friday and Saturday, February 23-29, 1896, under the last named officers, is as follows:

FRIDAY, FEBRUARY 23, 10:00 A. M.

Prayer, Rev. W. A. Reynolds. Introductory Address, J. A. Nevins, Camp Point. Address, Farming as a Pursuit, Hon. G. W. Dean, Adams. Question Box.

Afternoon, 1:30 p. m.

Overture violin and piano, Misses Helene and Mildred Kelly, Quincy. Discussion, Cost of Farm Products, C. M. Sloan, Clayton; S. D. Nokes, Mound. Vocal Solo, "Amorita," Miss Catherine Harvey, Quincy. Address, "Hygiene," Dr. Kelly, Quincy. Reading, "Wine Glasses," Miss Mabel Kelly, Quincy. Address, Farm Fertilizers, L. B. Cockern, Carthage.

Evening, 7:00 p. m.

Violin and Piano, Misses Helene and Mildred Kelly, Quincy. Address, "Landlord and Tenant," H. M. Swope, Quincy. Violin solo, "Flower Song," Miss Helene Kelly, Quincy. Recitation "Buying a Feller," Miss Mabel Kelly, Quincy. Address, "The Bright and the Dark Side of Life on the Farm," Elder O. Dilley, Camp Point. Trio, "Sweet Bunch of Daisies," Misses Helene and Mildred Kelly and Catherine Harvey, Quincy.

SATURDAY, FEBRUARY 23, 9:30 A. M.

Piano Solo, Miss Libbie Chase. "Corn Culture and Varieties," W. S. Stewart, Camp Point. Recitation, "Roderick Lee," Miss Nellie M. Garrett, Golden. "The Boy on the Farm," C. L. Cain, Augusta. "Cattle Feeding for Market," W. M. Logan, Clayton. Question Box.

Afternoon, 1:30 p. m.

Piano Solo, Miss Libbie Chase. Election of officers. Solo, Miss Greta Coe. "Raising Poultry for Profit," G. W. Francis, Camp Point. Recitation, Miss Nona Cate, Camp Point. "How to Make Farming Pay," R. B. Starr, Mendon. Solo, Miss Jessie Givler, Clayton. Address, "Like Produces Like," Rev. A. C. Hodgson, Clayton. All questions were open for discussion.

The next institute for Adams county will be held at Mendon, in the fall of 1896, under the following officers: President, S. N. Black, Clayton; Secretary, J. A. Nevins, Camp Point; Treasurer, J. C. Pearce, Camp Point; Executive Committee, the President, Secretary and Treasurer; Committee on Arrangements, Mrs. D. B. Wilson, Mrs. L. P. Hubbs, J. L. Staker, B. A. McCoy and James Hazlett; On Music, J. E. Kirkpatrick.

Boone County Farmers' Institute.

The present organization was completed in 1895, and an institute was held in Belvidere February 26-27, 1896, under the following management: President, W. L. Shattuck; Vice President, O. J. Lincoln, P. O., Belvidere; Treasurer, B. W. Morgan, Bonus; Secretary, C. E. Chena, Irene. The Executive Committee was composed of the four above named officers and John Ball, Hunter; W. S. Wallace, Argyle; J. R. Lilley, Blaine, and J. V. Colvin, Bonus.

Order of Exercises:

WEDNESDAY, FEBRUARY 26, 1896.

9:30 a. m. Music. Prayer by Rev. Wm. Craven. Address of Welcome, Mayor McInnes, Belvidere. Response, by Master Homer Hall, Flora. Opening Remarks, President Shattuck, Spring. 10:00 a. m. Why Farmers Should Organize, H. Merchant, Spring. Discussion.

Afternoon.

1:00 p. m. Music. Prayer by Rev. R. S. Walker. Recitation, Miss Lillian Bassett. 1:30 p. m. Does Farming Pay? H. W. Avery, Belvidere. Discussion. 2:00 p. m. Raising and Feeding Cattle, Ben Herbert. Discussion. 2:30 p. m. Plant Life and its Uses, A. J. Sweze, Winnebago county. Discussion. 3:00 p. m. Utilizing Corn Fodder, C. E. Chena, Flora. Discussion. 3:30 p. m. Raising and Care of Hogs for Market, W. M. Sawyer, Belvidere. Discussion.

THURSDAY, FEBRUARY 27, 1896.

9:30 a. m. Music. Prayer, Rev. J. A. Pierce. 9:45 a. m. Essay, Miss Lillian Bassett. 10:00 a. m. Special Education for the Farmer, L. M. Swenzy, Riddott. Discussion. 10:30 a. m. Poultry for Profit on the Farm. A. H. Currier, Rockford. Discussion. 11:30 a. m. Horticulture, J. C. Plumb, Wisconsin. Discussion.

Afternoon.

1:00 p. m. Music. Prayer, Rev. Dr. George R. Pierce. Election of officers. 1:15 p. m. Sunshine and Shadow of Farm Life, Mrs. Ellen A. Campbell, Harlem. 1:30 p. m. Outlook of our Young People from the Standpoint of Forty Years' Experience, O. J. Lincoln, Belvidere. 2:00 p. m. Composition of Milk, E. J. Bennett, Flora. Discussion. 2:30 p. m. Manufacture and Care of Dairy Butter, Fred DuBois, Belvidere. Discussion. 3:00 p. m. Care of Farm Machinery, O. S. Cohoon, Flora. Discussion.

The next meeting of the Boone County Farmers' Institute will be held at Belvidere, Tuesday and Wednesday, February 2 and 3, 1897, under the auspices of the following officers-elect, viz: President, W. L. Shattuck; Vice President, O. J. Lincoln; Treasurer, E. W. Morgan; Secretary, C. E. Chena; Executive Committee, C. F. Lucas, E. J. Bennett, Abram Kipp, Ben Herbert, Frank Leach, J. E. Conklin, Wm. Early and Wm. E. Lander, all of Belvidere; W. S. Wallace, Argyle; A. Livingston, Hunter; Robert Ardery, Capron; J. R. Lilley, Blaine; H. E. Kelloeg and S. Bates, both of Capron; W. A. Adams, Hunter, and N. E. Seward, P. O., Genoa, Dekalb county.

Brown County Farmers' Institute.

The Brown County Farmers' Institute was organized at Mt. Sterling, August 15, 1896, with the following officers: President, J. B. Vandeverter; vice president, O. A. Perry; secretary, H. A. Perry; treasurer, Robert Bloomfield, all of Mt. Sterling. Executive committee, Charles Dunlap, George E. Richardson, S. D. Nokes, W. B. Rigg, all of Mt. Sterling, and Newton Lucas, of Mounds.

Preparations are being completed for the first institute, to be held the coming year.

Carroll County Farmers' Institute.

This institute was organized November 3, 1891, with the following officers: Jacob Grossman, Lanark, president; W. R. Hostetter, Mt. Carroll, secretary; E. T. Becker, Mt. Carroll, treasurer. The first meeting was held in Mt. Carroll, December 15 and 16, 1891. Meetings have been held annually and sometimes semi-annually since. The officers for 1896 are: D. C. Bushell, president, Milledgeville; C. Lamp, treasurer, Lanark; W. R. Hostetter, secretary, Mt. Carroll. Vice presidents, who are the executive committee, one from each township in the county: James Bennett, Thompson; Isaac Gillespie, Zion; S. Bristol, Savanna; Wm. Hay, Mt. Carroll; E. T. E. Becker, Mt. Carroll; Henry Sack, Chadwick; A. B. Hostetter, Mt. Carroll; Jacob Grossman, Lanark; J. L. Slick, Lanark; T. A. Cotta, Lanark; J. K. Lashelle, Shannon; C. Shiley, Lanark; N. Woodin, Elkhorn Grove; Joe Like, Milledgeville. Meetings have been held in the following places: Lanark, Savanna, Milledgeville, Chadwick and Mt. Carroll. The program of the last meeting is as follows:

DECEMBER 11, 1896.

Morning session, 10 o'clock a. m.

Address of Welcome, Wesley Dial, Chadwick. Response, A. B. Hostetter, Mt. Carroll. Annual address by president of institute, Dan. S. Mackay, Mt. Carroll. Paper, Poultry Raising, Mrs. Lizzie Harnish, Mt. Carroll. Discussion, F. W. Ely, Shannon; George W. Sword, Lanark; Harry S. Smith, Elkhorn Grove. Short Talk on Institute Work, President Bradshaw, Iowa. Discussion.

Afternoon session, 1 o'clock p. m.

Appointment of committees. Paper, Corn Raising, Charles Beede, Chadwick. Discussion, John Cole, Thomson; M. Heimbaugh, Milledgeville; David Rowland, Lanark. Paper, How to Farm to Make It a Success, C. Lamp, Lanark. Discussion, Phil Queckboerner, Fair Haven; J. V. Cotta, Nursery; Lyman Wood, Mt. Carroll.

Evening session, 7:30 o'clock p. m.

Music. Reading of the best essays on School Libraries, by the school pupils of county. Mrs. Charles Beede, Chadwick; W. H. Barnes, Shannon, and a third person chosen by them were the judges. Music. Lecture, President Bradshaw, of the State University of Iowa. Music.

THURSDAY, DECEMBER 12, 1896.

Morning session, 10 o'clock a. m.

Paper, Cattle Feeding, Naaman Woodin, Elkhorn Grove. Discussion, George Morris, Lanark; Samuel Senneff and Leo Phillips. Animal Husbandry, Prof. Davenport, Dean of the College of Agriculture.

Afternoon session, 1 o'clock p. m.

Election of officers and reports of committees. Address, Prof. Eugene Davenport, Champaign. Paper, Utilizing the Corn Crop, D. C. Bussell, Milledgeville. Discussion, Henry Dahler, C. Finlayson, Mt. Carroll; James Bennett, Thomson; Isaac Gillespie, Zion. Selling Corn, Norman Hawk.

Clark County Farmers' Institute.

The program of the Clark County Institute, held February 19-20, 1896, is as follows:

Opening address, Capt. Ed. Harlan. Response, Hon. H. E. Taubeneck. Object of the Institute, J. A. Sweet, Secretary. Orchards and Fruits—Horticulture, George N. Parker, Robinson. Poultry and Eggs, Mrs. John Marvin, Marshall. Response, C. C. Cook. Does Clover Without Fertilizers Enrich the Soil? Joseph Lutz, Sr. Discussion by Institute.

SECOND DAY—9 A. M.

Drouth—Irrigation and Subsoiling, A. H. Norman, Martinsville. Hog-rising and Feeding, Jacob Arney, of Orange, followed by Joseph Lutz. How Farm to Make a Profit, John W. Hull, Orange. Discussed by the Institute. Corn Culture, Thomas Craig, Anderson. Discussed by the Institute. How Plow New Ground, Austin Sweet, Martinsville. Discussed by the Institute. General Farming, Hon. Charles F. Mills, Springfield.

Afternoon session, 1:30 p. m.

Election of officers for the ensuing year and transaction of miscellaneous business. Real Experience in Stock Raising, J. A. Parker, Terre Haute. Veterinary Work the Farmer Can Do, Austin Sweet, Martinsville. Chores About the Farm, Capt. Ed. Harlan, Marshall. A Paper on Flower Culture, Mesdames Wm. Purcell and N. B. Devol.

Coles County Farmers' Institute.

The Coles County Farmers' Institute was organized in 1890. The last institute was held in Charleston in March, 1896, under the following management: President, George W. Brown; Vice president, C. R. Doty; secretary and treasurer, J. P. Jones, all of Charleston. Executive committee, A. N. Walden, T. C. L. Endsley, Wm. Rosebrough and W. G. Walker, all of Charleston, and L. Craig, of Bushton.

Crawford County Farmers' Institute.

The Crawford County Farmers' Institute was organized April 4, 1896, with the following Officers: President, Henry Burner, Robinson; vice-president, David Goodwin, Hutsonville; secretary, D. A. Arnold, Oblong; treasurer, John D. Trumble; executive committee, the officers named above.

February 9 and 10, 1897, has been selected as the date for the next meeting at Robinson.

DeKalb County Farmers' Institute.

The DeKalb County Farmers' Institute was organized in 1889. Institutes have been held as follows: March 7, 1890, at DeKalb; March 4-5, 1891, at Sycamore; March 2-3, 1892, at DeKalb; January 25-26, 1893, at Sycamore. The officers of the Institute are as follows: President, George H. Gurlier, DeKalb; vice-president, E. F. Safford, Sycamore; secretary and treasurer, Edwin Waite, Sycamore; executive committee, Henry Wood, Sycamore; Henry B. Gurlier, DeKalb; James L. Hamilton, Malta; H. M. Coleman and F. H. Crane, both of Sycamore.

Douglas County Farmers' Institute.

The Douglas County Farmers' Institute was organized November 15, 1895. The first institute was held December 10 and 11, 1896, at Tuscola, under the following named officers: President, William Iles, Carmago; vice president, John C. Walker; secretary, Carroll C. Jones; treasurer, George Callaway, the last three named gentlemen of Tuscola.

Edward County Farmers' Institute.

The Edwards County Farmers' Institute was organized December 14, 1895. The first institute was held January 30 and 31, 1896, at Albion, under the following named officers: President, Ansel Gould, Bone Gap; vice-president, Charles Clark, Albion; secretary, M. E. Shurtleff; treasurer, Joseph White, Albion; executive committee, E. H. Rothrock, Lee Woods, George G. Shaller, J. W. Barber and Ed. Craig, all of Albion.

Effingham County Farmers' Institute.

The Effingham County Farmers' Institute was organized February 23, 1896. The first meeting was held at Kffingham, March 19 and 20, 1896, under the following officers: President, A. D. McCallen; secretary, Wm. Dyke; treasurer, Slocum Harvey. The program of the meeting is as follows:

MARCH 19.

Morning session 10 a. m.

President's Address and Discussion. E. G. Mendenhall, Secretary Southern Illinois Horticultural Society, Home Fruits for the Farmer. Discussion.

Afternoon session 1:30 p. m.

Prof. Lugenbeel, The Needs of the Farmer Boy. Discussion. F. G. Austin, Tomatoes as a money Crop. Discussion. Dr. Daniel Berry, Carmi, Ill., Clover the Poor Man's Fertilizer. Discussion.

MARCH 20.

Morning session 9:30 a. m.

Prof. Brinckley, On Soils. Discussion. B. H. Wernsing, My Experience With Clover. Discussion. Stock Feeding, by Charles Joy. New Fodder Crops, by Wm. Dyke.

Afternoon session 1:30 p. m.

G. W. McClure, Horticulturist, University of Illinois, Why Are Our Apple Orchards so Short-Lived? Discussion. Dr. Daniel Berry, The General Drainage of Illinois, and Its Relation to our Droughts. Discussion. Jos. H. Gillispie, The Hog Industry. Discussion.

The officers elected for the ensuing year are as follows: President, A. D. McCallen; vice-president, T. B. Rinehart; secretary and treasurer, Wm. Dyke.

Ford County Farmers' Institute.

The Ford County Farmers' Institute was organized in 1890. Institutes have been held as follows: 1890, 1891 and 1893, at Gibson City, and 1894, at Paxton. The officers of the institute are as follows: President, W. A. Bicket, Sibley; secretary, V. G. Way, Gibson City; treasurer, Fred W. Johnson, Paxton.

Fulton County Farmers' Institute.

The Fulton County Farmers' Institute was organized November 30, 1895. The first institute was held December 27, 1895, at Avon, Illinois, by the following named officers: President, James Carr; vice-president, George Hatch; secretary, N. O. Curry; treasurer, Wm. H. Rose, all of Avon. Executive Committee George Shunkle, John Roth, Howard Rose, A. E. Hatch and Jesse Johnson, all of Avon.

Gallatin County Farmers' Institute.

The Gallatin County Farmers' Institute was held in the Court House, Shawneetown, Tuesday and Wednesday, February 18 and 19, 1896, under the following officers: President, R. E. Sawler, Equality; vice-president, John McGehee; secretary, George Hanlon; treasurer, William A. Peoples, all three of Shawneetown. Executive Committee Rev. R. M. Davis, Omaha; James B. Hale, Cottonwood; B. Temple, Equality; M. Doherty and Charles Carroll, both of Shawneetown. The programme of the meeting held February 18 and 19, is as follows:

TUESDAY.

Morning session, 9:30 o'clock a. m..

Music. Invocation, Rev. J. Knowles, Shawneetown, Ill. Address of Welcome, Mayor A. C. Millepaugh, Shawneetown, Ill. Response, Hon. John Landrigan, Albion, Ill. Clover the Poor Man's Fertilizer, Dr. Daniel Berry, Carmi, Ill. Discussion. Life on the Farm, John A. Trousdale, Ridgway, Ill.

Afternoon session, 1:30 o'clock p. m.

Music. Prayer, Rev. R. M. Davis, Omaha, Ill. The future of Horse Breeding, Hon. John Landrigan, Albion, Ill. Discussion. Recitation, Miss Rose Rædel, Shawneetown, Ill. Swine Breeding, John S. McGehee, Shawneetown. Discussion. Music.

WEDNESDAY.

Morning session, 9 o'clock a. m.

Music. Prayer, Rev. J. G. Tucker, Shawneetown, Ill. Tile Drainage, John Welch, Shawneetown, Ill. Discussion. Recitation, Miss Rose Rodel, Shawneetown, Ill. Insects—The Farmers' Pests, Prof. S. A. Forbes, Urbana, Ill., State Entomologist. Discussion. Song, Miss Florence Robinson, Shawneetown, Ill. Taxation, Hon. G. B. Parsons, Shawneetown, Ill. Discussion. Music.

Afternoon session, 1:30 o'clock p. m.

Music. Prayer, Rev. J. F. Knowles, Shawneetown, Ill. The Relation of the Public School to the Farmer, Prof. V. McKnight, Shawneetown, Ill. Recitation, Miss Rose Rodel, Shawneetown, Ill. Cattle Breeding, Hon. E. E. Chester, Champaign, Ill. Discussion. Farm Products, L. C. Grater, Equality, Ill. Music. Adjournment.

The next meeting will be held at Shawneetown, under the above management, time not appointed.

Grundy County Farmer's Institute.

The Grundy County Farmers' Institute was organized September 21, 1895. The first institute was held in Morris, December 13 and 14, 1895, and second at Mazon, February 21, 1896, under the following auspices: President, Amos Dengman, Morris; vice-president, I. N. Clethers, Mazon; secretary, R. N. Devon, Verona, and J. K. Ely, Mazon. Executive Committee, John Winsor, Wanpensee; J. N. Woods, Gardner; George Weeler, Mazon; Alfred Hume and W. A. Walley, both of Morris. The programme of the last institute is as follows:

Farmers' Institute opened at Mazon with an Address by Geo. E. Wheeler, Mazon. Music by the String Orchestra. Address, What Benefits have we Received from Former Institutes, Capt. Wm. Reardon. Report from State Institute by Ray Woods.

Afternoon session.

Of What has the Farmers' Wife and Daughter to Complain, Mrs. Louisa Newport. Discussion, Mrs. Fred Harford. Music, by the Orchestra. Discussion of Tree Culture, Jonas Bartlett. Song, Glee Club.

Evening session.

Opened with a Song, Glee Club. Recitation, Miss Belle O'Leary. Debate—Resolved, that the Business Interest of the United States Demands the Free and Unlimited Coinage of both Gold and Silver at the Ratio of 16 to 1: Affirmative, Chas. A. Finch and Eveline Weldon; Negative, J. W. Ranch and Sadie M. Dewey. Recitation, Miss Pina Foster. Music, Glee Club.

FEBRUARY 22.

Morning session.

Music, Orchestra. Address, Hard Roads and Who Shall Maintain them—County or Township, Hon. J. K. Ely. Discussion, R. H. Dewey. Music, Glee Club. Address, What is the Cause and Remedy of the Low Price of Grain, S. H. Dewey. Discussion, I. N. Calthero and Martin Finch.

Afternoon session.

Music, Glee Club. Address, Why Does not Live Stock Pay as well as Formerly, Geo. Ridings. Discussion, J. N. Woods. Music, Orchestra.

Hamilton County Farmers' Institute.

The present organization of the Hamilton County Farmers' Institute was completed September 7, 1896, by the election of the following named gentlemen as permanent officers, to-wit: President, John T. Anderson, McLeansboro; Vice-President, John N. Upton, Thackery; Secretary, John Judd, McLeansboro; Treasurer, Albert Neal, McLeansboro; Committee on Programme, J. T. Garrison, Thackery, and John C. Hall, McLeansboro; Executive Committee, R. T. Hangate, Rural Hill; S. S. Garvin, Flint; W. P. Anderson, S. T. Wharton, and T. H. McNabb, McLeansboro. Institutes have been held under the above management at the court room in McLeansboro Sept. 7, 1895 and Dec. 14, 1895, as follows:

SATURDAY, SEPTEMBER 7, 1895.

President's opening address, John T. Anderson. Reading minutes by Secretary John Judd. Report of Treasurer, Albert Neal. The president read the programme for discussion. Will Large Orchards Pay in Hamilton county? J. C. Hall. Discussion. How to Manage Wheat and Chinch Bugs that Corn may be Protected? John N. Upton. Discussion. The Beet Way to Restore our old Land to Fertility, John Judd. Discussion. Should Hill Land be Farmed in the Same Manner as Bottom Land? Ephraim McNabb. Discussion. Every speaker appointed to open the discussion on the various topics was present and promptly responded with good practical talks on their several subjects. After the opening talks the gentlemen present entered into the discussion promptly, giving their views on the several topics and asking information on special features, making their first meeting a decided success.

SATURDAY, DECEMBER 14, 1895.

President's opening address, John T. Anderson. Reading minutes of last meeting by Secretary John Judd. Report of treasurer, Albert Neal. Reading of the programme for discussion by the president: Should Hamilton County have a new Court House? John G. Hall. Discussion, T. J. Garrison and L. J. Hale. Should we Begin to Arrange for Pastures Now, and How? H. A. W. Kipps. Discussion, A. J. Yates, G. W. Gollins and J. P. Moorman. Should Hamilton County Have More and Better Roads? Perry S. Lee. Discussion, A. J. Yates, John C. Hall and W. Elliott. The president read the act of the Thirty-ninth General Assembly creating the Illinois Farmers' Institute. On motion it was decided to hold a two-days' institute meeting, the time and place to be fixed at the next regular meeting. On motion, John Judd, M. A. Hooker and L. J. Hale were selected as delegates to the State Convention of Institute Workers at Springfield, January 8, 1896.

Hancock County Farmers' Institute.

The Hancock County Farmers' Institute was organized in 1887. One and two meetings have been held each year since 1887. The records show the first meeting was held December 23 and 23, 1887, at Carthage; January 18-19, 1893, at Carthage; November 16-17, 1894, at Carthage; December 20, 1894, at Hamilton; February 1-2, 1894 at Bowen; December 18-14, 1895, at Carthage; February 5-8, 1896, at LaHarpe. The last institute was held under the auspices of the following named officers: President, S. S. Chapman; Secretary and Treasurer, Frank Moore, both of Elvaston; executive committee, S. S. Chapman, C. N. Dennis, Hamilton; George W. Shinkle and C. M. McMellan, both of Denver, and W. B. Marvel, of Bowen. The program of the institute meeting held in Coulson's Opera House, LaHarpe, Wednesday and Thursday, February 5 and 6, 1896, was as follows:

WEDNESDAY, JANUARY 5, 1896, 10:00 A. M.

Call to order. Prayer. The Horse for the Farm, and How Cheap can we Raise Him, D. Conklin and A. Mesecher, LaHarpe. Poultry on the Farm, Mrs. Harriet Edmunds, Disco. Adjourned.

Wednesday, 1:00 p. m.: Rotation of Crops. How to be Successful, John Stine, Stronghurst. Does the Farm Pay, I. W. Cassell, LaHarpe. Spraying. How to Make it Effective, C. N. Dennie, Hamilton. Adjourned.

Wednesday, 7:00 p. m.: Music. Recitation, New Woman or New Man. Which? Miss Bertha Hillier, LaHarpe. Music, Gillison Orchestra. Our Schools, J. A. Califf, County Superintendent; Carthage. Music. Recitation, Miss Dora Hainline, LaHarpe. Music. Adjourned.

THURSDAY, JANUARY 6, 9:00 A. M.

Care of House Plants, Mrs. S. S. Gray, Hamilton. Pumpkins as Stock Food and How to Grow Them, J. M. Preston and Wm. Young, LaHarpe. Farm Fences, S. N. Black, Clayton. Hard Roads for the Country and Can we Afford It, Elder John Huston, Blandinsville.

Thursday, 1:00 p. m.: Farmers' Institutes; Their Benefit to the Country, Hon. Geo. W. Dean, Plainfield, and A. D. Barber, Hamilton. Farm Labor, Indoors and Out, Amos Edmunds, LaHarpe. Farmers' Foe, Dr. C. S. Rice, Disco.

NOTE—All subjects open for discussion after first presentation.

Jersey County Farmers' Institute.

The Jersey County Farmers' Institute was organized in 1896. The first institute was held in the court house at Jerseyville, February 19 and 20, 1896, under the following named officers: President, T. S. Chapman, Secretary and Treasurer, J. W. Becker, all of Jerseyville; executive committee, W. H. Fulkerson and A. A. Snedeker, of Jerseyville; E. A. Reihl, Alton, and Spencer Wyckoff, Delhi. The programme of the meeting held February 19 and 20, was as follows:

WEDNESDAY, FEBRUARY 19, 1896.

Morning Session, 11:00: Address by Chairman. Appointment of committees.

Afternoon Session, 1:15: Music, Male Quartette. Address, Hon. Norman J. Coleman, St. Louis. The Farmer and the Race Horse, L. E. Frost, Roodhouse. Discussion, J. K. Farrelly, of Greene, and F. VanHoorbeke.

Evening Session, 7:00: Music, Quartette. Fruit for Farmers' Homes, E. A. Reihl, Alton. Wheat and Cheat, C. E. Vanderheyden, Whitehall. Recitation, M. J. Dolan.

THURSDAY, FEBRUARY 20, 1896.

Morning Session, 9:00: Music, Quartette. Benefits of Farmers' Institutes, C. G. Winn, Griggsville. The Hog, G. W. Witt, Kane. Discussion, A. L. Wiegand, N. M. Lurton and others.

Afternoon Session, 1:15: Music, Quartette. Cattle, C. Holnback, Rockbridge. General discussion. Clover, Wm. Dougherty, Otterville. Discussion, W. H. Bartlett and Spencer Wyckoff. Church Bug and Corn Raising, Andrew Cope. Miscellaneous business.

JoDavie County Farmers' Institute.

Farmers' Institutes have been held in JoDavie county as follows: 1891, at Warren; 1892, at Hanover; 1893, at Stockton; February 8-9, 1894, at Galena; February 8-9, 1895, at Galena.

The officers of the JoDavie County Farmers' Institute are as follows: President, D. L. Norris, Galena; secretary and treasurer, J. J. Steele, Blanding. Executive committee, Bruce Miner, Nora; George W. Stock, Rush; W. E. Cubbon, Elizabeth; William Rouse, Galena, and R. J. Nesbitt, Hanover.

Johnson County Farmers' Institute.

The Johnson County Farmers' Institute was organized January 22, 1891. Institutes have been held in Vienna in 1891, 1892, 1893 and 1894. The last institute was held at Vienna, September 27 and 28, 1895, under the following officers, viz: President, W. S. Wymore; secretary, W. C. Simpson; treasurer, J. W. Fleming, all of Vienna. Executive committee, R. Reddin, C. L. Westman and W. A. Looney, all of Vienna.

Kankakee County Farmers' Institute.

The Kankakee County Farmers' Institute was organized in 1891. Institutes have been held in Kankakee in 1891, 1892 and 1893, and in Momence in 1894.

The officers of the institute are as follows: President, T. C. Schobery, Union Hill; vice president, Wm. Cooper; secretary, Len Small; treasurer, A. J. Byrnes, three last of Kankakee. Executive committee, Fred Mann and Lon Hay, both of Kankakee; L. S. McKinstry, Momence; O. W. Barnard, Manteno, and Azariah Buck, Herscher.

Kendall County Farmers' Institute.

The Kendall County Farmers' Institute was organized August 15, 1893, at Yorkville. The next institute will be held at Yorkville, January 20 and 21, 1897, under the following named officers: President, W. T. Lynn, Yorkville; vice president, M. A. Skinner, Plattville; secretary, R. A. McClelland, Yorkville; treasurer, Lewis Christensen, Plattville. Executive committee, A. E. Mayer, Melbrook; H. P. Barnes, Bristol; Myron Wormley, Oswego; John Murphy, Kendall; Charles Pope, Yorkville.

Knox County Farmers' Institute.

The Knox County Farmers' Institute was organized in 1890. Institutes have been held in Galesburg in January, 1890, 1891, 1892, 1893, 1894 and February 5, 6 and 7, 1895. The last meeting was held by the officers named below:

President, E. H. Goldsmith, Wataga; secretary, O. L. Campbell, Knoxville; treasurer, N. W. Sisson, Galesburg. Executive committee, G. W. Gale, W. W. Hamilton and J. H. Coolidge, all of Galesburg.

The program of the last institute meeting is as follows:

FEBRUARY 5, 1895.

Morning session.

Music. Prayer, Rev. Dr. Hood. Address of Welcome, Hon. J. J. Tunniff, Mayor of Galesburg. Response, E. H. Goldsmith, President of Institute. Reports of township vice presidents.

Afternoon session.

Music. Address, Rotation of Crops, Hon. Eugene Davenport, Dean of Illinois State Agricultural College. Discussion. Address, Poultry on the Farm, Miller Purvis, Chicago. Discussion.

THURSDAY, FEBRUARY 6, 1895.

Morning session.

Music. Prayer, Rev. Dr. Nash, President Lombard University. Address, Swine Raising, A. J. Lovejoy, Roscoe, Ill. Discussion, led by Hon. H. M. Sisson. Address, The Horse—What of the Future? LeRoy Marsh, Galesburg. Discussion.

Afternoon session.

Address, Dairying, James H. Coolidge, Jr. Discussion, led by Hon. J. F. Latimer. Address, Why Patronize Creameries, J. S. Grim, Knoxville. Discussion, led by L. W. Olson, Wataga. Address, Dairy Cows, Hon. A. G. Judd, Dixon, Ill.

FRIDAY, FEBRUARY 7, 1896.

Morning session.

Music, in charge of Mr. and Mrs. John Coolidge. Prayer, Rev. Dr. Sherrill. Election of officers. Address, The Farm and School, Prof. M. Andrews, Superintendent Schools of Knox County. Address, Bacteriology, Dr. A. G. Humphrey.

Afternoon session.

Address, Taxation of Farm Property, Hon. W. Seldon Gale. Address, Horticulture on the Farm, E. S. Fursman. Discussion. Adjournment.

The officers elected for the ensuing year are as follows: President, J. H. Coolidge, Jr.; treasurer, H. M. Sisson, both of Galesburg; treasurer, O. L. Campbell, Knoxville. Executive committee, officers named above and George W. Gale and W. T. Hamilton, both of Galesburg, and L. W. Olson, Sparta.

Logan County Farmers' Institute.

The Logan County Farmers' Institute was organized at Lincoln, December 28, 1896, with the following officers, viz.: President, George Wendell, New Holland; Vice President, William Evans; Secretary, William Fogarty, Jr.; Treasurer, A. B. Nicholson, the last three of Lincoln; Executive Committee, J. T. Foster, Elkhart; John A. Critchfield, Broadwell; E. T. L. Rantenberg and William Jones, of Lincoln, and A. M. Caldwell, of New Holland. Institutes have been held at Lincoln in 1888, 1889 and 1890.

The programme of the meeting held February 12-13, 1896, is as follows:

FRIDAY, FEBRUARY 7, 1:30 P. M.

Music, Aylum Band. Prayer, Rev. C. B. Taylor. Address, "Maintenance of Soil Fertility," Charles F. Mills, Springfield. Address, "Cultivation of Corn—Varieties for Feeding," Hon. J. T. Foster, Elkhart. Music, Aylum Band. Secretary's report from Awarding Committees.

SATURDAY, FEBRUARY 8, 9:30 A. M.

Music, Hanger Brothers. Address, "Farmers' Kitchen Garden," C. H. Johnson, Superintendent of State Farm, Lincoln. Address, "Legal Points on District Drainage," Judge Humphrey, Lincoln. Music, Hanger Brothers. Address, "What can be Accomplished by Cross Fertilization of Grapes?" E. F. L. Rantenberg, Lincoln. Address, "Benefits of Farmers' Institutes from an Educational Standpoint," Prof. C. W. Harriman, Superintendent of City Schools, Lincoln.

Afternoon session, 1:30 p. m.

Music, Hanger Brothers. Address, "The Mortgage Lifter—the Hog," Prof. D. P. McCracken, Paxton. Address, "Fruits for the Farm," James W. Jones, Lincoln. Music, Hanger Brothers. Address, "Relation of the Country to the City Schools," Prof. T. B. Williams, Principal of New Holland School. Ample time allotted for the discussion of each subject.

The next meeting will be held at Lincoln, January 12-13, 1897.

Macon County Farmers' Institute.

The Macon County Farmers' Institute was organized December 13, 1896, at Decatur, with the officers named below: President, W. T. Moffett, Boody; Vice President, W. H. Bean; Secretary, C. A. Thrift, Forsyth; Treasurer, C. H. Scott, Mt. Zion; Executive Committee, J. F. Muerhead, Harristown; S. C. Davis, Long Creek; David Wellepp, Maroa. J. W. Walker, Oakley, and J. B. Henry, Mt. Zion.

The programme of the institute held at Decatur, January 29 and 30, 1896, is as follows:

WEDNESDAY, JANUARY 29.

10:30 a. m. Vocal Music. Prayer. Vocal Music. Opening Address by President, W. T. Moffett. Secretary's report. Cattle—Best Breed for Average Farmer, J. H. Pickrell, Springfield.

Afternoon.

1:30. Vocal Music. Diversified Farming, C. F. Mills, Springfield. Horse Breeding for Profit, John Ullrich, Decatur.

Evening.

7:00. Vocal Music. Fertilizers, J. Carter, Danville.

THURSDAY JANUARY 30.

9:30 a. m. Vocal Music. Prayer. Vocal Music. Destructive Insects, E. Gastman, Decatur. Poultry, Mrs. R. A. Judy, Decatur.

Afternoon.

1:30. Vocal Music. Public Highways, H. Manecke, Oakley. Management of Swine, C. Henderson, Virginia. 3:00. Election of officers. All addresses followed by free discussion.

Mr. Pickrell, the next speaker on the programme, was not yet there, so the quartette sang another song, "The Lark." One gentleman proposed that, as Mr. Gastman was there, he give his address at once. W. H. Bean thought it would be better to let Mr. Gastman wait for his appointed time, as some farmers had planned to come in especially to hear him.

The next institute will be held at Decatur, January 5-6, 1897.

Marshall County Farmers' Institute.

The Marshall County Farmers' Institute was organized in January 1891. Institutes have been held as follows: March 4-5, 1891, at Lacon; February 3-4, 1892, at Wenona; February, 1893, at Henry; February 7-8, 1894, at Macon; and February, 1895, at Wenona. The last meeting was held at Wenona, January 16 and 17, 1896, by the following named officers: President, Joseph Miller, Wenona; vice-president, J. A. Williams, Henry; secretary and treasurer, W. H. Parkinson, Wenona; executive committee, W. B. Mills, Mt. Palatine; S. S. Merritt, Henry, and C. M. Turner, Wenona.

Mason County Farmers' Institute.

The Mason County Farmers' Institute was organized in 1890. Institutes have been held December 17-18, 1890, at Havana; December 22-23, 1892, at Mason City; January 17-18-19, 1894, at Havana; January 22-23, 1895, at Mason City; and October 1, 1895, at Havana. The last institute was conducted by the following named officers: President, S. F. Porter; vice-president, O. L. Hartzell, both of Mason City; secretary, Walter L. Coon, Topeka; treasurer, H. C. Burnham, Havana; executive committee, D. C. White, Forest City; S. R. Hess, Mason City; J. T. Mowder, Havana.

McHenry County Farmers' Institute.

The following named gentlemen constitute the official board of the McHenry County Farmers' Institute, viz: President, M. Zunpleman, Marengo; vice-president, O. M. Hale, Nunda; secretary, Frank Barnes, Woodstock; treasurer, Thomas O. Cook, Union; executive committee, Frank Willo, Harvard; C. W. Haneson, McHenry; R. W. Overton, Richmond; George Hunt, Greenwood; and Gardner Burbank, Woodstock. The next meeting will be held at Woodstock, January 27-28, 1897.

McLean County Farmers' Institute.

The McLean County Farmers' Institute was organized November 23, 1895, with the following officials, viz.: President, Dean N. Funk, Bloomington; vice-president, S. N. King, Normal; secretary, E. C. Mitchell, Danvers. The programme of the institute held December 19 and 20, 1895, at Bloomington, is as follows:

THURSDAY.

Morning session, 9:30 o'clock a. m.

Prayer, by Rev. W. P. Kane. Vocal Solo, with violin obligato, Mrs. Kate Rowell Martin. Opening address by President. Report of Treasurer. Paper, Merits of the Improved Breeds of Cattle, Prof. Eugene Davenport, of Champaign. Discussion, Edward Ryburn and LaFayette Funk. Vocal Solo, Miss Lillian Bradley. Paper, Sheep Breeding, Oscar Bonnett. Discussion, Joseph Keenan and L. S. Rupert.

Afternoon session; 1:30 o'clock p. m.

Vocal Solo, Miss Carrie Hainline. Paper, Corn, its Cultivation and Uses, J. O. Davis. Discussion, C. C. Aldrich, Wm. Perry, Geo. Boher and John Ayres. Vocal Solo, Miss Alva Trimble. Paper, Management of Cattle, Thomas Thornbury. Discussion, J. W. Doner and Noah Franklin. Vocal Solo, Miss Genevieve Moyer. Paper, The Professional Farmer, H. K. Smith. Paper, Our Public Highways, W. J. Barnes. Discussion, A. J. Scrogin, T. F. Dunlap and Geo. W. Gastman.

Evening session, 7 o'clock, p. m.

Music by Arion Quartette. Papers, Our Country Schools, J. S. Wren and Miss McGraw. Music by Arion Quartette. Paper, Sunshine and Shadow of Farm Life, Mrs. Chapman, Freedom, Illinois. What will be the Effect of the Exodus of the Farmers to the City, John McConnell, John Ayers and Alex. Keady. Music by Arion Quartette.

FRIDAY.

Morning session, 9:30 o'clock a. m.

Music, Eclipse Quartette. Paper, Farm Insurance, Dr. A. E. Stewart. Discussion, J. F. Moore, G. B. Lansin and Edmund Coale. Piano Duett, The Misses Allinson. Paper, Butter Making, Mrs. P. F. Sweeney. Discussion, F. L. Gaston, Mrs. Jennie Barlow and Mrs. M. M. Baker. Music, Eclipse Quartette. Paper, Management of Swine, Frank Srout. Discussion, F. O. Lash, J. M. Minton and S. Noble King. Paper, Fruit Interests, W. A. Watson. Discussion, Charles Eystone and Dr. H. Schroeder.

Afternoon session, 1:30 o'clock p. m.

Violin Solo, Mr. and Mrs. Geo. Martin. Paper, Poultry on the Farm, Mrs. S. Noble King. Discussion, S. S. Noble and F. A. Rodman. Vocal Solo, Miss Mabel Falmer. Election of officers for ensuing year. Paper, Entomology (chinch bugs), Prof. S. A. Forbes, Champaign, Ill. Discussion on Clover. Vocal Solo, Mrs. H. E. Becker. Paper, Farm Fences, John Baremore. Discussion, Noah Franklin and LaFayette Funk.

The next institute will be held by the officers named below: President, Noah Franklin, Lexington; vice-president, Eugene Funk, Bloomington; secretary, Arthur Coals, Holder; treasurer, L. E. Skaggs, Danvers. Executive Committee, Oscar Bonnett, Leroy; John Ayers, Danvers; W. J. Barnes, McLean; W. C. Jones, Arrowsmith; A. J. Scrogin, Lexington; F. C. McCherle, Merna; Frank Gaston, Normal; J. M. Morton, Downs; W. F. Young, Bloomington.

Mercer County Farmers' Institute.

The Mercer County Farmers' Institute was organized in 1889, and re-organized in 1892, and meetings have been held in Aledo, January 20 and 31, 1892; January 10 and 11, also February 23 and 24, 1893; January 4 and 5, 1894; January 22 and 23, 1895. Our last institute was held in our new Court House, February 5 and 6, 1896; officers in charge as follows: President, Alva Jay; secretary and treasurer, W. L. Candor; vice-presidents, D. N. Holmes, C. S. Smith, Ed Young, Edwin E. Sedwick, Dan Mack, G. N. Carnahan, C. A. Bopes, Mrs. Hattie C. Boggs, Mrs. J. W. Archer, Mrs. W. P. Criswell, Mrs. John Brady, E. R. Gilmore, Wm. Doak, O. P. Mannon and Louis Schrader, when the following programme was presented. Programme of the eighth annual meeting of the Mercer County Farmers' Institute held in the Court House, Aledo, February 5 and 6, 1896:

WEDNESDAY, FEBRUARY 5, 1896.

Morning session, 10 o'clock a. m.

Election of officers for the ensuing year and such other business as may come before the meeting.

Afternoon session, 1 o'clock p. m.

Corn Culture, Paper by Hon. W. F. Crawford, Taylor Ridge. Discussion opened by C. E. Bentley, Aledo. Seeding for Pasture, Paper by E. M. Castle, Buffalo, Prairie. Discussion opened by O. A. Bridgford, Joy. Legislation for the farmer, Address by C. J. Searle, States Attorney, Rock Island.

THURSDAY, FEBRUARY 6, 1896.

Morning session, 10 o'clock a. m.

Smoot on Corn, Paper by Marshal Felton, Millersburg. Discussion opened by George E. Thornton, Millersburg. General Manuring, Paper by M. S. Campbell, Alexis. Discussion opened by T. Greenwood, Suez, and W. S. McCreight, Suez.

Afternoon session, 1 o'clock p. m.

Poultry for Profit, Paper by Mrs. J. W. Archer, Aledo. Discussion opened by Fred Crosby, Seaton. Selection and Care of Household Plants, Paper by Mrs. Ruth Carter, Aledo. Discussion opened by Mrs. O. J. Lorimer, Aledo.

The next meetings of the Mercer County Farmers' Institute will be held December 16, 1896, January 13 and February 17, 1897. Places of meeting as yet to be fixed. The meetings will be held under the auspices of the officers elect. President, Alva Jay, of Sunbeam; secretary and treasurer, W. S. McCreight, of Suez. Executive Committee, Alva Jay, W. S. McCreight, Leon McWhorter, and I. F. Holmes.

Morgan County Farmers' Institute.

The Morgan County Farmers' Institute was organized February 15, 1895, with the officers named below: President, W. H. Rowe; Secretary, H. L. Doan; Treasurer, Wm. Blackburn; all of Jacksonville. Executive Committee—Stanfield Baldwin, Thomas Butler and Henry Stevenson, all of Jacksonville, and M. Bush, of Murrayville. Institutes have been held at Jacksonville March 6-7, 1895, and February 19-20, 1896. The programme of the late meeting is as follows:

WEDNESDAY.

Morning session, 10:30 a. m.

Call to order. Prayer, Rev. W. A. Smith. Address of welcome, Hon. Thos. Worthington. Response, President W. H. Rowe. Music. Paper—"Preservation of Food," A. H. Sturtevant. Paper—"Raising Horses for Profit," W. H. Woods and others. Music. Paper—"The Farmer's Orchard," C. G. Winn, Griggsville.

Afternoon session, 1:30 p. m.

Music. Paper—"The Chinch Bug," Prof. T. P. Carter. Paper—"Clover," Jerome Culp. Paper—"The Farmer's Model Garden," A. L. Hay. Music. Paper—"Dairying in Morgan County," Wm. Stevenson. Paper—"Moral Aspect of the Farmer's Family," Mrs. S. B. Moore.

THURSDAY.

Morning session, 9:30 a. m.

Paper—"The Cultivation of Corn," A. C. Rice. Paper—"The Hog and his Value on the Farm," L. O. Berryman, Franklin. Music. Paper—"Local Poultry Culture," David T. Heimlich. Paper—"Cattle Feeding," Thurlow Pratt, Chapin. Music. Paper—"The Jersey Cow," W. W. Carter.

Afternoon session, 1:30 p. m.

Paper—"Farm Accounts," Chas. A. Rowe. Paper—"Horticulture," Frank J. Heintz. Music. Paper—"Small Fruits," H. L. Doan. Paper, Mrs. C. J. Drury, Orleans. Music. Paper—"Education of the Farmers' Daughters," Rev. J. R. Harker.

Putnam County Farmers' Institute.

The Putnam County Farmers' Institute was organized in 1888. Institutes have been held in the county as follows: 1890, at Hennepin; 1891, Granville; 1892, Clear Creek. January, 1893, at Hennepin. February 11-12, 1893, at Hennepin. The last meeting was held by the officers named below, viz.: President, John McNabb, Mt. Palatine; Vice President, Lewis Skeel, Hennepin; Secretary and Treasurer, H. K. Smith, Clear Creek. Executive Committee—A. W. Hopkins, Granville; H. K. Smith, Clear Creek; Henry White, Hennepin and J. O. Winship, Putnam. The following is the programme of the late Institute:

Paper—"Value of Sorghum Crop," by H. K. Smith, Clear Creek; discussion by A. W. Hopkins, Granville, and J. H. Beagley, of Sibley; E. S. Fursman, El Paso, W. Griffith. Paper—"What is Hennepin Prairie Soil Best Adapted to," by L. Skeel; discussion by H. K. Smith. Paper on Corn, by E. S. Fursman, El Paso.

Evening session.

Address—"Practical Education," by Rev. Zeller. Song by Quartette. Paper—"Bottom Farming," by J. H. Seaton. Address—"Horses," by E. S. Fursman; discussion, George Ball. Paper—"The Corn Plant," J. H. Beagley, Sibley, Ill. Song, by Miss Oppen, of Granville. Paper—"Fruits on the Farm," by Henry Augustine, Normal. Paper—"Mother's Influence on her Children," by Mrs. L. M. Bumgarner, of Clear Creek. Paper—"The Present Depression in Agriculture," by E. S. Fursman, El Paso. Paper—"Farmers' Institute," by Oliver Wilson, Magnolia.

The following officers were elected for the ensuing year: President, A. J. Robinson, Granville; Vice President, T. A. Wheeler, Putnam; Secretary, W. B. Mills, Mt. Palatine; Executive Committee, H. K. Smith, Clear Creek; A. W. Hopkins, Granville; H. B. Zenor, Hennepin.

Scott County Farmers' Institute.

The Scott County Farmers' Institute was organized in January, 1892. Institutes have been held in Winchester as follows: February 18-19, 1892; January 26-27, 1893, and January 3-4, 1896. The last Institute was held by the following named officers, viz.: President, A. P. Grout; Secretary, H. Miner; Treasurer, N. R. Smithson, all of Winchester. Executive Committee—W. C. Gibbs, James Hodgkinson and Joseph McDonald, all of Winchester.

St. Clair County Farmers' Institute.

The St. Clair County Farmers' Institute was organized November 28, 1894, at Belleville. Institutes have been held at Belleville, as follows: January 16-17, 1895, and February 6-7, 1896. The last meeting was held in Liederkram Hall by the officers named below: President, G. B. Tate, Smithton; secretary, A. B. Ogile; treasurer, Fred Helms; last two of Belleville. The programme of the last meeting is as follows:

THURSDAY.

Afternoon session 1:15 p. m.

Call to order. Opening Remarks by President. Music—G. A. R. Quartette—John Heinzelman, Geo. Rogers, Wm. Heinzelman, Robert Bessie. Address, Option Dealing, as it Affects the Farmer, Hon. W. H. Hatch, Hannibal, Mo. Promiscuous discussion. Question box.

Evening session 7:15 p. m.

Music. Save the Pieces, Miss Laura Patterson, Belleville. Discussion. The Future of Agriculture, L. F. Dintleman, Belleville. Discussion. Home on the Farm, Mrs. J. Nixon, Marietta. Discussion. Recitation, Miss Estella Messenger, Belleville. Question box.

FRIDAY.

Morning session 10 a. m.

Sorghum, Its Culture and Uses, Isaac R. Eyman, Belleville. Discussion. Land Transfer Reform, Hon. Louis Perotet, Mascoutah. Discussion. Education a Necessary Qualification for Successful Farming, John T. Nixon, Marissa. Discussion. Question box.

Afternoon session 1:15 p. m.

Legal Points of Interest to Farmers, T. M. Webb, Belleville. Discussion. Planting and caring for Strawberries and Raspberries, J. B. Mathews, Marissa. Discussion. Question box. Election of officers for the ensuing year. Transaction of such business as may come before the institute. Reading and adoption of minutes. Adjournment.

Vermilion County Farmers' Institute.

On September 21, 1896, in accordance with an announcement made through the county papers previous to that day, a few met in the court house at Danville and organized the Vermilion County Farmers' Institute. The following officers were then elected:

J. H. Oakwood, president; Harvey Bowen, vice president; Wiley Fowler, treasurer; L. H. Griffith, secretary. Executive committee: Joseph Carter, Danville; James Clifton, Catlin; W. G. Herron, Allerton; Ike Stern, Danville; O. P. Stufflebeam, Rossville.

After the meeting the executive committee began arrangements for a big institute to be held at Danville, January 8 and 9, 1896.

The institute on January 8 and 9 was well attended and aroused among farmers and others. At this time every township in the county was represented in attendance and participation in the exercises. The following officers were elected for the ensuing year:

President, W. G. Herron, Allerton; vice president, E. R. McConnell, Hoopeston; treasurer, Wiley Fowler, Danville; secretary, L. H. Griffith, Danville. Executive committee: Elijah Potter, Snider P. O.; E. H. Whitham, Rankin; Milton Mills, Ridge Farm; James Clifton, Catlin; Thomas Ross, Danville; Reason Rouse, Danville; M. H. Waterman, Ridge Farm; Jacob Zapp, Georgetown; Harvey Bowen, Hoopeston; A. B. Judy, Blue Grass; Z. Starr, Bismarck; T. A. Collison, Collison; J. S. Funnell, Muncie; Philip Cadle, Rossville; Taylor Gerlaugh, Hastings; Henry Davis, Fairmount.

The above named executive committee is composed of one representative of each township in the county, except that Danville township is granted two.

Our next institute will be held about next December or January; and with the interest already entertained throughout the county, and through the able committee's efforts, we expect a meeting that will stir up old Vermilion from center to circumference—from pole to pole.

The following is a very brief outline of the program carried out in the sessions held January 8 and 9, 1896:

WEDNESDAY, JANUARY 8, 1896.

Prayer, Rev. W. H. Webster. Welcome, W. R. Jewell, Esq., Danville. Response, Hon. Charles A. Allen, Hoopeston. Cause of Failures of Orchards, Hon. H. M. Dunlap, Savoy. Discussion, Hon. W. M. Bince, Ridge Farm. What Crops to Raise in Vermilion County, Hon. J. P. Fletcher, Ridge Farm. Discussion, Harvey Bowen, Esq., Hoopeston.

Evening session

Lecture, Duties and Responsibilities of Farmers, Hon. S. W. Allerton, Chicago. Lecture, Corn and How to Grow It, W. E. Lodge, Esq., Monticello.

THURSDAY, JANUARY 9, 1896.

Morning session.

The Farmer's Boy, Hon. E. R. E. Kimbrough, Danville. Farming as It Is, Philip Dobson, Cerro Gordo. Destroying Burrs and Weeds, J. J. Southworth, Allerton.

Afternoon session.

Diseases of Hogs, Dr. D. McIntosh, University of Illinois. Influence of Roads on Farmers' Organization, Hon. John M. Stahl, Quincy. Poultry Management, Mrs. R. A. Judy, Decatur. Discussion, Mrs. Joseph Carter, Danville.

Warren County Farmers' Institute.

The Warren County Farmers' Institute was organized in February, 1893. Institutes have been held in Monmouth as follows: February 18 and 19, 1893; February 20 and 21, 1894; December 17 and 18, 1895. The last institute was held by the officers named below:

President, James Barnett, Cold Brook; secretary, J. E. Miller; treasurer, T. S. McClanahan, the last two of Monmouth. Executive committee, the officers named above and Lawrence Gilmore, of Gerlaw, and D. C. Graham, of Cameron.

White County Farmers's Institute.

The White County Farmers' Institute was organized November 13, 1896, with the following officers: President, Chris. Stunnett; Vice President, Leonard Miller; Secretary, R. L. Organ, and Treasurer, Thomas Spelman, all of Carmi, and a vice president for each township. Our institute was held at Carmi in February, 1898.

Winnebago County Farmers' Institute.

The Winnebago County Farmers' Institute was organized January 23, 1892. Institutes have been held at Rockford as follows: February 17-18, 1892; February 16-17, 1893; February 15-16, 1894, and January 31 and February 1, 1895. The last institute was held January 30-31, 1896, by the following officers: President, A. J. Lovejoy, Roscoe; Vice President, W. L. Frisbie; Secretary, A. E. Cutler, Treasurer, Geo. W. Collins, all of Rockford; Executive Committee, D. B. Redington, W. H. Miller, J. D. Hart, T. L. Cleveland, all of Rockford, and Lawrence McDonald of Seward.

The programme of the late meeting is as follows:

THURSDAY, JANUARY 30, 1896.

Morning session, 9:30.

Opening address by the president, A. J. Lovejoy. Prayer, Rev. W. W. Leete. Address of Welcome, Mayor E. W. Brown. Response, Hon. Laurence McDonald. Singing, Harris Colored Quartette. Raising Hogs for the Market, J. A. Countrymen, Lindenwood. Discussion. Management of Milk, Prof. W. A. Powers, University of Illinois. Discussion and Questions. Select reading. Appointment of Committees.

Afternoon session, 1 o'clock.

Singing, Harris Colored Quartette. Physical Culture on the Farm, Mrs. Frank Kent, Roscoe. Value of Cob Meal for Feed, Clarence P. Coolidge. Discussion and Questions. Value of Corn Fodder and its Treatment, Willard Osborn, Winnebago. Discussion and Questions. Orchard and Culture for Northern Illinois, S. E. Hall, Cherry Valley. Sub-Soling and Surface Cultivation, by the Editor of the Western Plowman. Discussion and Questions. Potato Culture, Hon. David Hunter, Guilford. Discussion and Questions. Poultry for Profit on the Farm, A. H. Currier.

FRIDAY, JANUARY 31, 1896.

Morning session, 9:30 o'clock.

Singing, Harris Colored Quartette. The Cow and Her Treatment, W. H. Miller, Rockford. Discussion and Questions. Small Fruits and Their Cultivation, Mrs. William Tullock, Rockford. Water and Vegetation, Prof. T. J. Burrill, President Agricultural Experimental Station University of Illinois. Discussion and Questions. The Outlook for Our Young People from the Standpoint of Forty Years' Practical Experience, John Wilcox, Burrill.

Afternoon session, 1 o'clock.

Singing, Harris Colored Quartette. Cream Separators for the Farm, H. P. Knight, Rockford. Sunshine and Shadow of Farm Life, Mrs. Nellie Campbell, Harlem. The Reproduction and Dissemination of Plants, Prof. Burrill, State University. Discussion and Questions. Progress of, and Prospects for, Hard roads in Winnebago County. Does it Pay to Build and Use Silos, D. W. Birmingham, Harrison. Discussion. Farmers' Mutual Insurance Companies—Their Economy and Safety, Webster Osborn, Winnebago. Reports of Committees. Election of Officers.

Woodford County Farmers' Institute.

The Woodford County Farmers' Institute was organized at El Paso, January 1, 1888. Institutes have been held at El Paso in February, 1891; February, 1892; January, 1893, and January, 1894. The last institute was held in the Grand Army Hall, at Eureka, January 28-29, 1896, by the following officers: President, Samuel Stitt; Secretary, E. S. Fursman, El Paso; Treasurer, G. W. Horner, El Paso.

The programme of the late meeting is as follows:

TUESDAY, JANUARY 28, 1896.

Morning session, 10:00 a. m.

Organization. Appointment of committees. Election of officers. Arrangement of exhibits. General conference.

Afternoon session, 1:15 p. m.

Prayer, Rev. Dolphus Smith. Address of Welcome, Mayor B. J. Radford. Response, Hon. J. L. McGuire, Metamora. Song, Glee Club. Farmers' Institutes, Hon. John Virgin, Fairbury. Vegetable and Flower Garden, Mrs. G. W. Horner, El Paso. Sub-soling, J. H. Beagley, editor Corn and Hog Journal, Sibley. General discussion.

WEDNESDAY, JANUARY 29, 1896.

Morning session, 9:30 a. m.

Prayer, Rev. George A. Fulcher. Corn Culture—Illustrated, E. S. Furrman, El Paso. Discussion. Hog Raising, John M. Stonebraker, Panola. Discussion. Fruits on the Farm, Henry Augustine, Normal, ex-President State Horticultural Society.

Afternoon session, 1:30 p. m.

The Farmer Boy, Rev. E. S. Wilson, Fairbury. Reading, Miss Anna Janvier Jones. Clover, D. W. Vittum, Canton, member State Board of Agriculture. Discussed by G. W. Horner, El Paso; N. C. Lichtenberger, Cruger. Poultry, Mrs. Noble King, Normal. Discussed by Miss Lillian Baird, Eureka; Mrs. Porter Barrett, El Paso; Miss Frank Haynes, Eureka. Farmers' Mutual Insurance, C. W. Stephenson, Secor, Secretary Roanoke Insurance Company. Discussed by N. S. De Vries, Panola; R. B. Dickinson, Eureka. Oat Culture, P. A. Felter, Eureka. Discussed by John Patton, El Paso; W. H. H. Mooberry, Eureka. Horses, G. W. Cress, Washington. Discussed by Capt. Jo Major, Eureka.

Capt. W. M. Bullock, Chairman.

INSTITUTE APPOINTMENTS.

The Institutes named below have appointed meetings for the ensuing season as follows:

COUNTY INSTITUTE MEETINGS.

County.	Location.	Date.
Adams.....	Minden.....	October 8, 9, 1896.....
Bond.....	Sorento.....	September 16, 17, 1896.....
Boone.....	Belvidere.....	February 2, 3, 1897.....
C. I. Houm.....	Hardin.....	November 5, 6, 1896.....
Carroll.....	Thompson.....	December 15, 1896.....
Champaign.....	Rantoul.....	January 21, 22, 1897.....
Christian.....	Taylorville.....	February 17, 18, 1897.....
Crawford.....	Robinson.....	February 9, 10, 1897.....
De Witt.....	Clinton.....	January 18, 19, 20, 1897.....
Douglas.....	Farmers City.....	February 16, 17, 1897.....
DuPage.....	Wheaton.....	January 27, 28, 1897.....
Edgar.....	Paris.....	February 9, 10, 11, 1897.....
Ford.....	Gibson City.....	February 24, 25, 1897.....
Gallatin.....	Shawneetown.....	December 17, 18, 19, 1896.....
Hancock.....	Carthage.....	December 4, 5, 1896.....
Hancock.....	Carthage.....	February 16, 17, 1897.....
Henry.....	Geneseo.....	February 12, 13, 1897.....
Iroquois.....	Watseka.....	January 26, 27, 1897.....
Jasper.....	Newton.....	November, 1896.....
Jefferson.....	Mt. Vernon.....	February 4, 5, 1897.....
Jersey.....	Jerseyville.....	February 18, 19, 1897.....
Kankakee.....	Kankakee.....	January 20, 21, 1897.....
Kendall.....	Yorkville.....	February 10, 11, 12, 1897.....
Knox.....	Galesburg.....	January, 1897.....
LaSalle.....	Ottawa.....	January 20, 21, 1897.....
Lawrence.....	Lawrenceville.....	February 15, 16, 17, 1897.....
Lee.....	Dixon.....	January 12, 13, 1897.....
Logan.....	Lincoln.....	September 3, 4, 1896.....
Madison.....	Highland.....	December 16, 1896.....
Mercer.....	Decatur.....	January 5, 6, 1897.....
Macon.....	Petersburg.....	January 19, 20, 1897.....
Menard.....	Hillsboro.....	February 18, 17, 1897.....
Montgomery.....	Litchfield.....	February 18, 17, 18, 1897.....
Montgomery.....	Jacksonville.....	February 10, 11, 12, 1897.....
Morgan.....	Macomb.....	October 28, 29, 1896.....
McDonough.....	Woodstock.....	January 27, 28, 1897.....
McHenry.....	Woodstock.....	January 13, 14, 1897.....
McLean.....	Oregon.....	February 18, 19, 20, 1897.....
Ogle.....		

Institute Appointments—Concluded.

County.	Location.	Date.
Platt	Monticello	January 26, 27, 1896.
Pike	Pittsfield.	January 28, 29, 1897.
Randolph.	Sparta.	January 19, 20, 1897.
Rock Island.	Auburn	October 21, 22, 1896.
Sangamon.	Rushville.	November 3, 1896.
Schuyler.	January 28, 1897.
Stark	February 18, 19, 1897.
St. Clair.....	Freeport	February 9, 10, 11, 1897.
Stephenson	Delavan.	January 13, 14, 1897.
Tazewell.....	Mt. Carmel	December 3, 4, 1896.
Wabash.	Fairfield.	November 24, 25, 1896.
Wayne	Fairfield.	February 3, 4, 5, 1897.
Wayne	Sterling.	December 9, 10, 1896.
Whiteside	Morrison.	October 12, 1896.
Whiteside

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